



# Advancing the Dialogue

Toward a Healthier Future

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For more information on additional GRI disclosures and a comprehensive GRI index, go to [www.merck.com/cr/gri](http://www.merck.com/cr/gri).

For more information on our ATMI reporting, go to [www.merck.com/cr/atmi](http://www.merck.com/cr/atmi).

\* A2: Merck has a long history of working to improve access to medicines and numerous related policies, but we have not yet formalized an overall access to medicines policy.

† We mention only the goals that are most closely related to our business. For more information on our contributions to the MDGs, see [www.merck.com/cr/access/mdgs](http://www.merck.com/cr/access/mdgs).

# At Merck our fundamental responsibility is discovering, developing and delivering innovative medicines and vaccines that can make a difference in people's lives and create a healthier future.

We believe that fulfilling this responsibility in a sustainable manner demands high ethical standards and a culture that values honesty, integrity and transparency in all that we do.

In the face of the current financial crisis, Merck is more committed than ever to ensuring that Corporate Responsibility (CR) is an integral part of the way we do business, and to working with our stakeholders to create shared value and to help solve the tough issues facing business and society today.

## ABOUT MERCK

Merck & Co., Inc. is a global research-driven pharmaceutical company that discovers, develops, manufactures and markets a broad range of innovative medicines and vaccines to address unmet medical needs. Merck operates as Merck Sharp & Dohme (MSD) in most countries outside the United States. Because of what we do, we recognize that we have special obligations to society.

Merck's stated mission is to provide society with superior products and services by developing innovations and solutions that improve the quality of life and satisfy customer needs, to provide employees with meaningful work and advancement opportunities, and investors with a superior rate of return. Our Company mission and values are reflected in our CR approach, which clearly sets out how we see

our responsibilities in terms of global health and access to medicines, ethical and sustainable business practices, contribution to scientific advancement, good employee relations and returning value to shareholders. We seek to maintain high ethical standards and a culture that values honesty, integrity and transparency in all that we do. Company decisions are driven by what is right for patients.<sup>1</sup>

## MERCK'S CR PRINCIPLES

Merck's core business is to discover and develop new medicines and vaccines that make a difference in people's lives. Our commitment to Corporate Responsibility extends to *how* we achieve this goal:

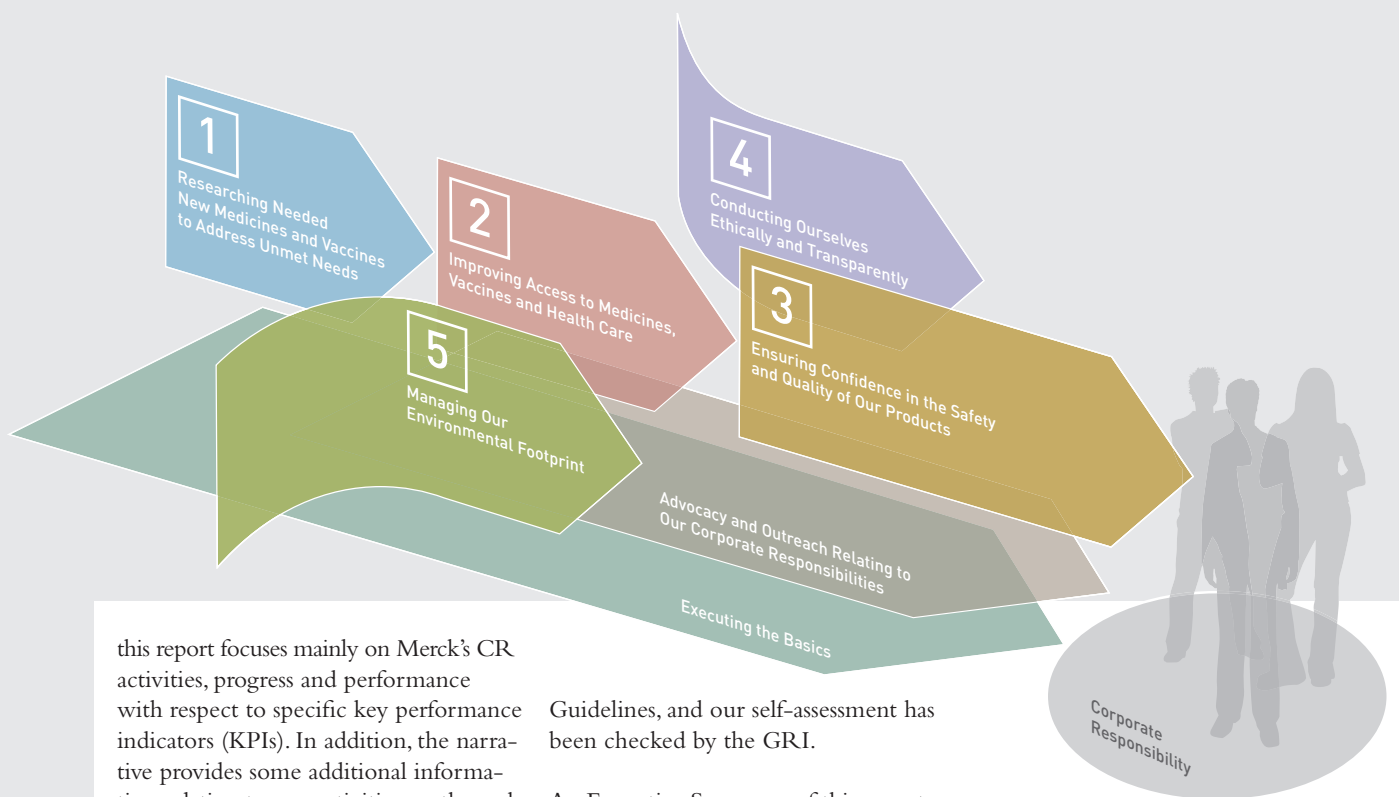
» By conducting our business with high ethical standards

- » By engaging in activities to expand access to quality health care around the world
- » By making a positive and sustainable impact on the communities and societies where we live and work
- » By meeting the needs of our employees in a fair and just manner.

## ABOUT THIS REPORT

This report updates Merck's Corporate Responsibility 2006–2007 Report published in October 2008. Its primary audiences are investors committed to socially responsible investing, financial analysts, shareholders and shareholder groups, non-governmental organizations (NGOs) and academic experts concerned with sustainability issues, and others interested in the corporate responsibility activities and performance of Merck. In response to stakeholder feedback,

This report contains "forward-looking statements" as that term is defined in the Private Securities Litigation Reform Act of 1995. These statements are based on management's current expectations and involve risks and uncertainties, which may cause results to differ materially from those set forth in the statements. The forward-looking statements may include statements regarding product development, product potential or financial performance. No forward-looking statement can be guaranteed and actual results may differ materially from those projected. Merck undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events, or otherwise. Forward-looking statements in this report should be evaluated together with the many uncertainties that affect Merck's business, particularly those mentioned in the risk factors and cautionary statements in Item 1A of Merck's Form 10-K for the year ended Dec. 31, 2008, and in any risk factors or cautionary statements contained in the Company's periodic reports on Form 10-Q or current reports on Form 8-K, which the Company incorporates by reference.



this report focuses mainly on Merck's CR activities, progress and performance with respect to specific key performance indicators (KPIs). In addition, the narrative provides some additional information relating to our activities up through June 2009. As much as possible, we have guided readers to where they can go for more information, including our CR website and other reports such as our annual financial reports on Form 10-Ks.<sup>2</sup>

We have focused our CR reporting on critical, non-financial material issues which we have identified through an assessment of factors in the global business environment, the pharmaceutical sector and Merck specifically, as well as feedback from external stakeholders. We continuously strive to provide greater detail than we have in the past on these issues, especially in terms of our challenges, metrics and targets.

In addition, we have used several external guidelines and measurement frameworks to inform the scope of our reporting. These include the Global Reporting Initiative (GRI) Guidelines,<sup>3</sup> the Millennium Development Goals,<sup>4</sup> the Access to Medicines Index<sup>5</sup> and the UN Global Compact,<sup>6</sup> of which Merck became a signatory in January 2009. We are pleased to have achieved a reporting level B on the GRI

Guidelines, and our self-assessment has been checked by the GRI.

An Executive Summary of this report is available in print and on our website. We plan to publish our next CR report in 2010.

In this report, we define where we do not report metrics as follows: N/A: not available; N/D: no data; N/R: not reported. For most reported metrics


we have provided prior year data wherever available.

We welcome your feedback on this report. Please contact us to tell us what you think – our contact information is on the back cover.



#### GRI APPLICATION LEVEL

We are pleased to have achieved a reporting level B on the Global Reporting Initiative (GRI) G3 Guidelines, and our self-assessment has been checked by the GRI as shown in the grid below:

		C	C+	B	B+	A	A+
MANDATORY	Self-declared						
	Third Party Checked		REPORT EXTERNALLY ASSURED		REPORT EXTERNALLY ASSURED		REPORT EXTERNALLY ASSURED
OPTIONAL	GRI Checked		REPORT EXTERNALLY ASSURED		REPORT EXTERNALLY ASSURED		REPORT EXTERNALLY ASSURED

More information can be found on the GRI at [www.globalreporting.org](http://www.globalreporting.org).

1 [www.merck.com/about/mission.html](http://www.merck.com/about/mission.html)

2 [www.merck.com/finance/reportsannual.html](http://www.merck.com/finance/reportsannual.html)

3 [www.globalreporting.org/ReportingFramework/G3Guidelines/](http://www.globalreporting.org/ReportingFramework/G3Guidelines/)

4 [www.un.org/millenniumgoals/](http://www.un.org/millenniumgoals/)

5 [www.atminindex.org](http://www.atminindex.org)

6 [www.unglobalcompact.org](http://www.unglobalcompact.org)

# Message from the CEO



**RICHARD T. CLARK**

Chairman, President and  
Chief Executive Officer,  
Merck & Co., Inc.

First and foremost among them is our ongoing commitment to putting patients first. Discovering and developing novel medicines and vaccines is at the heart of who we are as a company. But we also believe it is important to get our medicines and vaccines to the people who need them most. In the United States, we are working with the Obama Administration and Congress to support the enactment of common-sense plans to reform the U.S. healthcare system. We also recently increased the income parameters for Merck's U.S. Patient Assistance Program to help more people benefit from our 50-year-old program.

We also recognize that most people worldwide still lack adequate access to medicines, vaccines and quality health care. To help address this challenge, we have implemented a tiered pricing policy for our HIV medicines and certain vaccines that foster greater access to these essential therapies. We have created numerous programs and partnerships in developing countries, emerging markets, and industrialized countries to help improve healthcare capacity and improve access to our products for all who can benefit, wherever they live.

In tough economic times, it is tempting for a company to retreat back to more parochial business concerns. At Merck, however, we believe that good corporate citizenship and good governance have never been more important. Doing the right thing – even when times are tough – makes good business sense.

The past few years have been a period of significant transformation for Merck. We have worked hard to transform every aspect of our business – from how we approach research and development, to how we manufacture our products, to how we engage with our customers. And the coming months will bring even more change, as we prepare to merge with our longtime partner, Schering-Plough. But even as we work to align and integrate these two strong companies to create a global healthcare leader, we know there are some things that will *not* change.

It is important that we continue to remain true to our core values, one of which is to operate openly and ethically. In this spirit we have taken significant steps to improve transparency, committing to public disclosure of our financial support for third-party groups and for healthcare providers who speak on behalf of Merck or our products.

We also want to do our part to tackle climate change. To this end, we are improving energy efficiency across our business. Since 2004 we have reduced energy demand at our research, manufacturing and major office sites by 28 percent, exceeding our goal of 25 percent reduction. We have also made significant progress toward achieving our greenhouse gas (GHG) reduction goal. Reducing our energy use and our GHG emissions not only benefits the environment, but also benefits Merck's bottom line.

In January 2009, Merck signed the United Nation's Global Compact, the world's largest and most widely embraced corporate citizenship initiative. Our signature signals our commitment to the Compact's ten universally accepted principles in the areas of human rights, labor, environment and anti-corruption, and expresses our intent to support and advance those principles within our company and entities controlled by it.

As reflected in the theme of this report, Merck is committed to ongoing engagement with stakeholders, and to ensuring that we are responsive to their concerns. Our interactions help to ensure that our approach to corporate responsibility reflects both public expectations and our long-standing company values.

We are proud of what we have achieved thus far – but there is always room for improvement. As a company, our corporate responsibility reporting and governance structure will continue to evolve. We look forward to continuing to engage actively with our key stakeholders to make sure we remain on the right track. As you will see, this engagement is a major theme of this year's report.

I believe our long-standing commitment to good corporate citizenship will strengthen the new Merck we are striving to build, and will provide a strong foundation of shared values through which Merck, our employees, and our many global stakeholders can benefit.

**Richard T. Clark**  
Chairman, President and  
Chief Executive Officer

September 2009

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# Message from the Board

Merck is a company with an inspiring track record of leadership in corporate citizenship. Initiatives such as the Merck MECTIZAN Donation Program and the African Comprehensive HIV/AIDS Partnerships, to name just two, have set the standard for public/private partnerships in improving access to medicines. Merck continues to implement innovative new programs such as the ROTATEQ Access Program in Nicaragua and the China-MSD HIV/AIDS Partnership.

The Merck Board of Directors Committee on Public Policy and Social Responsibility has reviewed Merck's 2008 Corporate Responsibility Report. On behalf of the Board, I am very pleased to note that Merck has made progress on several key measures, including reducing our energy demand and our greenhouse gas emissions, enhancing employee diversity, and helping to increase the number of people with access to our medicines and vaccines. I am also glad to see the Company is instituting additional measures and pursuing more aggressive targets for the future, such as greater transparency regarding financial support to third parties.

Significantly, Merck's corporate responsibility commitment is evident throughout the business, as demonstrated by its leadership in researching, developing, manufacturing and marketing the medicines and vaccines that make such a difference to millions of people worldwide. Merck's recent engagement in the United Nations Global Compact is entirely consistent with its corporate values and standards.

I am gratified that Merck has been recognized for its sustainability work. In 2008 the Access to Medicines Index ranked Merck No. 3 among global pharmaceutical companies for promoting universal access to medicines, and

the only U.S. company in the top seven. In early 2009 Merck was ranked No. 4 on *CRO Magazine's* 100 Best Corporate Citizens list. This public recognition confirms what many of our global stakeholders already know: Merck is in step with the evolving demands of global business – competitive, innovative, and responsible.



Thomas E. Shenk, Ph.D.  
Chair,  
Merck Board Committee on  
Public Policy and Social Responsibility

September 2009



**THOMAS E. SHENK, Ph.D.**  
Chair, Merck Board Committee  
on Public Policy and  
Social Responsibility



# Merck's Approach to CR Reporting

We recognize that successfully managing social, ethical and environmental issues involves everyone at Merck.

For this reason, we have established a Company-wide process for identifying the CR issues that are most important to our business success and to our stakeholders, and for more formally managing those issues in terms of performance and targets.

## MATERIALITY ASSESSMENT PROCESS

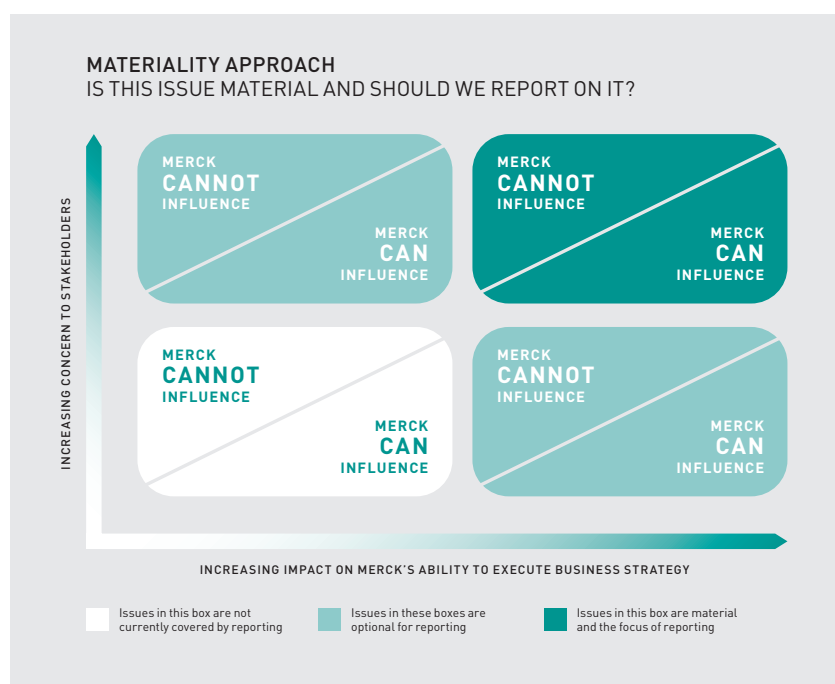
In 2008, Merck conducted a materiality assessment based, in part, on standards for sustainability reporting and discussions with both internal and external stakeholders to identify those environmental, social and governance (ESG) issues of greatest significance to multiple stakeholders and to Merck's future success.

Following a review of numerous information sources, Merck's Corporate Responsibility Council – a senior-level cross-functional Merck body responsible for the Company's CR approach – assessed ESG issues based on three parameters: 1) the impact on Merck's ability to achieve our business strategy; 2) the level of concern to external stakeholders; and 3) the degree to which Merck can influence the issue. A similar process was used to determine specific reporting issues within each priority ESG issue area.

Based on this analysis, the following broad issue areas were identified as priority ESG issues for the Company:

- 1) Researching and developing new medicines and vaccines that address unmet needs
- 2) Improving access to medicines, vaccines and health care
- 3) Ensuring confidence in the safety and quality of our products
- 4) Conducting ourselves ethically and transparently
- 5) Managing our environmental footprint.

In 2009, the CR Council reaffirmed these five issue areas as the Company's ongoing priority ESG issues, and reaffirmed their support for a systematic process to identify specific goals, targets and key performance indicators (KPIs) with which to measure Merck's performance in each area. These goals are reviewed annually with Merck's Executive Committee and



Board of Directors Committee on Public Policy and Social Responsibility.

Our materiality approach is illustrated by the chart on this page. Topics that fell in the top right-hand quadrant for this reporting year were considered to be the most material for Merck at this time, to be included in our print report and executive summary.

Merck recognizes the importance of issues that may not be within the Company's immediate or complete control such as climate change, global poverty and access to medicines, particularly in the developing world. In these areas, we believe that we can, however, influence how progress is made in addressing these issues, particularly through public policy and advocacy or through partnerships or collaborations with others.

## STAKEHOLDER ENGAGEMENT

Merck regularly interacts with a diverse array of public and private stakeholders.

In 2008 and 2009, we collected feedback from certain groups, including investors committed to sustainable investing, analysts, shareholder groups, non-governmental organizations (NGOs), academic experts, and Merck employees, to inform our approach to CR and how we measure our performance. This feedback helps ensure that our reporting is relevant and meaningful to our readers. A list of those consulted and a summary of their comments are available on our website at [www.merck.com/cr/externalinput](http://www.merck.com/cr/externalinput). We have reflected their comments where feasible and appropriate in our reporting, and we are committed to considering for future reports other recommendations that we could not respond to during this reporting cycle. We are also exploring mechanisms for more formal, ongoing engagement.

For more information on Merck's materiality assessment and stakeholder engagement practices, go to [www.merck.com/cr/approach](http://www.merck.com/cr/approach).

# Economic Contribution to Society

Merck makes its principal economic contribution to society through the discovery, development, manufacturing and marketing of our products, which directly improve and maintain the health of individuals and communities around the world, helping them to lead more productive lives.

During 2008, we continued to grow our business with new product indications and formulations, as well as clinical trials that demonstrate their benefits. In 2008, we advanced 31 candidates to the next clinical development stage. As of February 15, 2009, we had 47 candidates in Phase I–III clinical development. We remain confident that our pipeline continues to show great potential and we continue to work hard to ensure confidence in the safety and effectiveness of our products.

We also contribute substantial economic and social value to the countries and communities where we operate. Through our local research, manufacturing and sales operations, by purchasing products and services from numerous and diverse suppliers, and by investing in community infrastructure, we generate skilled employment opportunities and market activity that directly and indirectly drive income and economic growth. Through our research

activities, Merck contributes to local R&D capacity in the life sciences sector, which is critical to building national competitiveness in the 21st century. By granting licenses for our products and our technical know-how to small and medium-sized companies, we contribute to their growth and to the local scientific knowledge base. Through our national and local tax payments, which over the last five years (2004–2008) totaled more than US\$8.8 billion worldwide, we help

support government-financed pensions, health systems and local infrastructure.

In addition, we return value to shareholders in the form of dividends and an active stock repurchase program.

For more information relating to the Company's business, please refer to our 2008 financial statement set forth in our Report on Form 10-K for the year ending December 31, 2008.

## FINANCIAL INFORMATION\*

GLOBAL	2008†	2007	2006	2005
Sales (US\$M)	23,850.30	24,197.7	22,636.0	22,011.9
Merck's investment in R&D programs (US\$B)‡	4.8	4.9	4.8	3.8
Number of employees	55,200	59,800	60,000	61,000
Number of stockholders (Millions) (Including those that hold Merck stock in "street name")	approx. 1.2	approx. 1.2	approx. 1.2	approx. 1.2
Annual cash dividend paid per share (US\$)	1.52	1.52	1.52	1.52
Global tax expense as reported on income statement (US\$M)	1,999.4	95.3	1,787.6	2,732

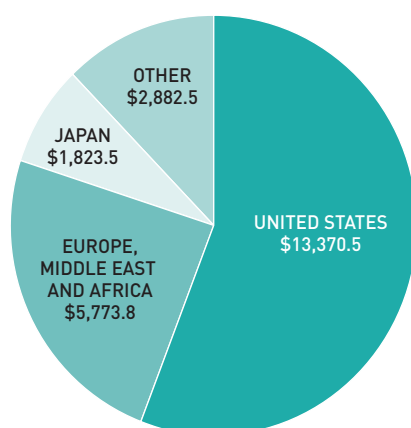
\* For more information, see our Annual Financial Report (10-K) for the year ended December 31, 2008 at [www.merck.com/finance/reportsannual.html](http://www.merck.com/finance/reportsannual.html).

† Amounts from 2008 include a gain on distribution from AstraZeneca LP, a gain related to the sale of the Company's remaining worldwide rights to Aggrastat, the favorable impact of certain tax items, the impact of restructuring actions, additional legal defense costs and an expense for a contribution to The Merck Company Foundation.

‡ Research activities and investments include all Merck divisions.



## 2008 REVENUE BY GEOGRAPHIC REGION (US\$M)



## SUPPORTING OUR COMMUNITIES

As of April 30, 2009, Merck (including its Banyu subsidiary in Japan) had a physical presence in approximately 80 countries worldwide with approximately 265 research, manufacturing, sales and administration sites. In all of these locations, we recognize that our success depends in large part on our relationships and interactions with our local communities, including business and community leaders, elected officials, charities, fenceline neighbors, educators, local media and our employees.

We strive to have a positive impact on the communities in which we operate, and we recognize our responsibility toward those affected directly or indirectly by our operations and activities.

We rely on local communities not only for our workforce but also for many of our suppliers and for our ability to do business. Through ongoing engagement and dialogue, we work to understand community needs and concerns, and to respond by addressing local challenges in ways that build stronger communities and support the sustainability of our business.

We contribute to our communities in three ways:

- » Direct and indirect economic contributions such as employment, training, support of local suppliers and local R&D, and paying taxes (as above);
- » Managing our community impacts – for example, by ensuring confidence in environmental and safety performance and respecting human rights;
- » Addressing community needs through philanthropy and community involvement.

Underlying our community approach is our commitment to respecting human rights. As a signatory to the UN Global Compact, Merck is committed to protecting and promoting fundamental human rights not only within our immediate workforce but within our broader sphere of influence, including within our local communities. For more information on our commitment to human rights, go to p. 37.

In addition, during the course of our operations, we take great care not to cause harm to our communities, through rigorous management of the safety of our processes and our environmental footprint. For more information, go to p. 38.

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## CONTRIBUTIONS TO MEDICINE AND SOCIETY

GLOBAL	2008	2007	2006	2005
Number of new products approved	1	2	5	2
Number of medicines and vaccines in pipeline (Phase I–III) and products under regulatory review	47	49	57	58
Philanthropic investment (US\$M)	821	828	826	1,039

# Summary of Progress and Future Plans

STATED GOALS IN LAST REPORT	PROGRESS/ACHIEVEMENTS	FUTURE PLANS
<b>1 RESEARCHING NEEDED NEW MEDICINES AND VACCINES</b>		
<ul style="list-style-type: none"> <li>» Grow our pipeline with a focus on researching and developing first-in-class or best-in-class medicines and vaccines.</li> <li>» Expand our interactions with public and private entities to understand and support key research priorities and opportunities, including for developing world diseases.</li> <li>» Initiate development of a formal policy on post-trial drug access in 2008.</li> <li>» Finalize principles for business practices involving the medical and scientific community.</li> </ul>	<ul style="list-style-type: none"> <li>» Advanced 31 candidates to the next clinical development stage in 2008; as of February 15, 2009, had 47 candidates in Phase I–III development.</li> <li>» Provided financial support to the WHO/TDR Partnership Network for research in tropical diseases.</li> <li>» Granted the International Partnership for Microbicides (IPM) a royalty-free license to develop, manufacture and distribute a novel ARV compound for use in developing countries.</li> <li>» Granted an exclusive, royalty-free licensing agreement with Medicines for Malaria for an investigational drug candidate for use in the developing world.</li> <li>» Entered into collaborative agreement with DNDi to support discovery and development of improved treatments for neglected tropical diseases.</li> <li>» Developed a new procedure for a compassionate use program.</li> <li>» Finalized a set of Guiding Principles for Business Practices Involving the Medical and Scientific Community, and implemented guidance on interactions between MRL staff and external scientists.</li> </ul>	<ul style="list-style-type: none"> <li>» Continue to grow our pipeline with a focus on researching and developing first-in-class or best-in-class medicines and vaccines in targeted areas according to our R&amp;D agenda.</li> <li>» Through Merck BioVentures, further diversify Merck's scientific portfolio with a view to creating value and improving access to novel biologics and biosimilars; we are committed to having at least five biosimilars in late-stage development in 2012, and to launching at least six of these products between 2012 and 2017.</li> <li>» Continue to expand our engagement with public and private entities such as academic institutions and NGOs to understand and support research priorities and opportunities in support of global public health needs.</li> <li>» Deliver 25 percent of early pipeline from external sources of science within three to five years.</li> </ul>
<b>2 IMPROVING ACCESS TO MEDICINES, VACCINES AND HEALTH CARE</b>		
<ul style="list-style-type: none"> <li>» Continue to work with international groups such as the GAVI Alliance to facilitate introduction of vaccines in the world's poorest countries.</li> <li>» Continue to investigate opportunities to reduce the cost of our ARVs for people living in the world's poorest countries and those hardest hit by the pandemic, including through working with external manufacturers and suppliers to achieve incremental efficiencies.</li> <li>» Expand our presence in emerging markets and explore business models for all our products to reach new populations. Report on developments in future reports.</li> </ul>	<ul style="list-style-type: none"> <li>» Obtained WHO prequalification for ROTATEQ, MMRII and GARDASIL. By the end of 2008, ROTATEQ was approved in 87 countries, 15 of which are GAVI-eligible; GARDASIL was approved in 109 countries, 23 of which are GAVI-eligible.</li> <li>» To help expand access to GARDASIL in developing world, worked out agreement with CSL Limited to waive royalties for sales in those countries.</li> <li>» As of December 31, 2008, 653,867 patients in 131 countries and territories, including an estimated 111,471 children, were being treated with regimens containing at least one of Merck's ARVs.</li> <li>» Through China-MSD HIV/AIDS Partnership, expanded access to prevention, testing, monitoring and treatment in Sichuan Province.</li> <li>» In connection with the MECTIZAN Donation Program, 31 percent of the formerly at-risk population in the Americas is no longer at risk of contracting river blindness.</li> </ul>	<ul style="list-style-type: none"> <li>» Continue to work with international groups to facilitate introduction of our rotavirus and human papillomavirus vaccines in the world's poorest countries.</li> <li>» Begin reporting in 2010 the number of doses shipped through GARDASIL Access Program.</li> <li>» Achieve 82–84 percent vaccination rate for rotavirus with ROTATEQ in Nicaragua by the end of 2009.</li> <li>» Continue to pursue partnerships with others to improve access to medicines and care in resource-constrained settings.</li> <li>» Continue to support actively health system reform worldwide to help improve and accelerate access to medicines and vaccines.</li> <li>» We are on track to achieve our goal of \$2 billion in sales from emerging markets by 2010, and we plan to be among the top five pharmaceutical companies in the markets we are focusing on.</li> </ul>
<b>3 ENSURING CONFIDENCE IN THE SAFETY AND QUALITY OF OUR PRODUCTS</b>		
<ul style="list-style-type: none"> <li>» Continue to register at trial initiation all clinical trials in patients that the Company sponsors worldwide, at <a href="http://www.ClinicalTrials.gov">www.ClinicalTrials.gov</a>.</li> <li>» Continue to disclose results from all registered trials of marketed products regardless of outcome at <a href="http://www.ClinicalTrials.gov">www.ClinicalTrials.gov</a> in a timely manner.</li> <li>» Continue to work to enhance and integrate our systems to identify, measure, control and sustain quality excellence in our products.</li> </ul>	<ul style="list-style-type: none"> <li>» Posted the results of our trials on <a href="http://www.ClinicalTrials.gov">www.ClinicalTrials.gov</a> since October 2008; through December 2008, posted the results of over 290 trials on <a href="http://www.ClinicalStudyResults.org">www.ClinicalStudyResults.org</a>.</li> <li>» Of 42 inspections for Good Clinical Practices or pharmacovigilance conducted by regulatory agencies worldwide in 2008, none resulted in critical observations and none resulted in the rejection of any clinical study or regulatory filing.</li> <li>» Established an Anti-Counterfeiting Steering Committee to oversee our global strategy, and worked with other companies to strengthen efforts against counterfeits worldwide.</li> </ul>	<ul style="list-style-type: none"> <li>» Continue to implement our vaccine supply manufacturing strategy as part of our commitment to restore Merck's reputation as a reliable global supplier of quality vaccines.</li> <li>» Continue to maintain strict product quality standards and multiple supply chain safeguards to ensure the safety and supply of our products no matter where our medicines and vaccines are manufactured internally or externally.</li> <li>» Continue to implement our corporate, proactive worldwide anti-counterfeiting strategy, focused on securing the supply chain, detecting and responding to counterfeit events, and raising awareness of the risks of counterfeit pharmaceutical products.</li> </ul>
<b>4 CONDUCTING OURSELVES ETHICALLY AND TRANSPARENTLY</b>		
<ul style="list-style-type: none"> <li>» Achieve 95 percent completion rate of new ethics training courses by required employee populations, including <i>Know the Code</i>, by end of 2009.</li> <li>» Disclose over time our financial support to medical, scientific and patient organizations globally. In 2009, expand reporting on grants and payments to U.S. organizations and begin reporting on grants made in Europe and Canada; continue to expand disclosure into other regions as we work to build infrastructure and systems necessary to allow global reporting.</li> <li>» Disclose in 2009 all payments to physicians in the United States who speak on behalf of Merck or our products.</li> <li>» Update our policies and practices in the U.S. by January 2009 to ensure compliance with the revised PhRMA Code on Interactions with Health Care Professionals.</li> </ul>	<ul style="list-style-type: none"> <li>» In October 2008, began reporting grants over \$500 made by Merck's Global Human Health division to U.S. organizations in support of independent accredited educational programs for healthcare professionals.</li> <li>» Endorsed U.S. Physicians Payment Sunshine Act of 2008, which would have mandated disclosure of financial relationships between physicians and the pharmaceutical industry.</li> <li>» Began disclosing support to patient organizations in Europe, Middle East and Africa made by Merck offices in those regions since 2008.</li> <li>» Implemented new Guiding Principles for Ethical Business Practices with the medical and scientific community.</li> <li>» Adopted a policy requiring a minimum six-month time period following the approval of a new product before launching DTC broadcast advertising in the U.S., formalizing our historical practice.</li> <li>» Updated our policies and practices in the U.S. to ensure compliance with revised PhRMA Code.</li> </ul>	<ul style="list-style-type: none"> <li>» Achieve our planned 2009 goals regarding ethics training; achieve a 100 percent response rate to the disclosure statement on conflicts of interest by 2010.</li> <li>» Report on results of new program on escalation, investigation, remediation and recognition of non-compliance events in 2009 CR Report.</li> <li>» Begin disclosing in 4Q2009 all payments to U.S.-based healthcare professionals who speak on behalf of Merck or our products; in second half of 2009, begin reporting certain other U.S. third-party grants and payments made to patient organizations in Canada and grants to other third-party institutions in Europe, Middle East, Africa and Canada.</li> <li>» Develop a global training program based on Merck's Guiding Principles for Business Practices Involving the Medical and Scientific Community.</li> <li>» Finalize development of global labor relations guidelines and monitoring tools.</li> <li>» Implement human rights risk assessment tool.</li> </ul>

STATED GOALS IN LAST REPORT	PROGRESS/ACHIEVEMENTS	FUTURE PLANS
<b>5 MANAGING OUR ENVIRONMENTAL FOOTPRINT</b>		
<ul style="list-style-type: none"> <li>» Reduce energy intensity by 25 percent per unit area (MMBTU/ft<sup>2</sup>) and reduce water use by 15 percent by the end of 2008 from a 2004 baseline.</li> <li>» Reduce the Company's total global greenhouse gas emissions by 12 percent by the end of 2012 from a 2004 baseline.</li> <li>» Zero significant safety or environmental events.</li> <li>» Continue to work with stakeholders on the issue of Pharmaceuticals in the Environment to identify additional data needs and to conduct our own environmental risk assessments based upon the best available science.</li> </ul>	<ul style="list-style-type: none"> <li>» Achieved and exceeded our goal to reduce energy demand by 25 percent from a 2004 baseline; achieved and exceeded our water-use goal of 15 percent reduction between 2004 and 2008.</li> <li>» Inaugurated a 1.6 megawatt ground-mounted photovoltaic energy array at our corporate headquarters.</li> <li>» Adopted a corporate commitment to build all new laboratories and offices to achieve LEED® Silver Certification or its equivalent globally.</li> <li>» Through our membership in the PhRMA PIE Task Force, contributed to the research that supports the SMARxT Disposal Program, designed to provide the general public with information on proper disposal of medication.</li> </ul>	<ul style="list-style-type: none"> <li>» Zero significant safety or environmental events.</li> <li>» Continue to reduce the Company's total global greenhouse gas emissions to reach 12 percent by the end of 2012 from a 2004 baseline, including offsetting emissions from new facilities currently under construction.</li> <li>» Establish appropriate reduction goals in line with the global desire among nations and regions to commit to significant reductions through 2020 and 2050.</li> <li>» Continue to identify opportunities for water use improvements.</li> <li>» Continue to monitor Toxic Release Inventory (TRI) and Volatile Organic Compounds (VOC) emissions to ensure that we maintain reductions gains from past initiatives.</li> <li>» Continue to work with stakeholders and the scientific community on the evolving issue of pharmaceuticals in the environment (PIE).</li> </ul>
<b>6 ADVOCACY AND OUTREACH</b>		
<ul style="list-style-type: none"> <li>» Include in 2009 on our website all dollars spent globally on corporate political campaign contributions.</li> <li>» Report externally in 2009 on adherence to ethical business practices related to corporate political spending.</li> <li>» Ensure all major public/private partnerships (PPPs) in which we participate have clear annual performance requirements, where possible linked to the Millennium Development Goals. By 2010, work toward reporting on percentage of PPPs that report annually against such requirements.</li> </ul>	<ul style="list-style-type: none"> <li>» Beginning in 2009, expanded disclosure of corporate political contributions to Australia and Canada, the only other countries where Merck provides such contributions.</li> <li>» In 2008, Merck began disclosing on our website the portion of dues that major U.S.-based trade associations report to us as being used for advocacy and/or political activity purposes where dues are &gt;\$50,000.</li> <li>» In 2009, we are requiring an annual progress and evaluation report for all PPPs to which we provide financial support.</li> </ul>	<ul style="list-style-type: none"> <li>» In 2010, draft a new model code of conduct that includes provisions of the Center for Political Accountability Model Code and additional provisions based on policies and practices.</li> <li>» In 2010, disclose all of our memberships in U.S. state business-related associations, regardless of the size of the dues.</li> <li>» Provide on our website a list of policy positions being advocated within U.S. state legislatures.</li> <li>» In 2010, report on the number of PPPs for which Merck has provided support that report annually against program objectives and performance requirements, including a measure of their progress against the U.N. Millennium Development Goals where applicable.</li> </ul>
<b>7 EXECUTING THE BASICS</b>		
<b>Employee practices</b> <ul style="list-style-type: none"> <li>» Increase female representation at senior manager level to 36 percent, and under-represented ethnic group representation at this level to 18 percent, by 2012.</li> <li>» Raise awareness of flexible work arrangements policy, increase employee satisfaction with flexible work opportunities and begin tracking global use in 2009.</li> <li>» Reduce Company-wide and lost-time injury rates by 15 percent each from 2007 baseline by end 2008.</li> </ul>	<ul style="list-style-type: none"> <li>» Increased female representation in executive roles to 28 percent, and under-represented ethnic group representation on senior management team to 15 percent.</li> <li>» Launched the Global Constituency Groups (GCGs) initiative, to support our global diversity strategy.</li> <li>» In 2008, Merck implemented a global flexible work arrangement policy and launched tools to increase access to such arrangements worldwide.</li> <li>» Decreased lost-time injury rate by 12.5 percent while taking steps that dramatically increased reporting of injuries.</li> </ul>	<ul style="list-style-type: none"> <li>» Continue to increase female and under-represented ethnic group representation at senior manager level in line with 2012 goals.</li> <li>» Begin to formally track global use of our flexible work arrangements in 2009; by 2010, achieve 80 percent employee satisfaction with opportunities in this regard.</li> <li>» Reduce Company-wide and lost-time injury rates by 15 percent in 2009 versus 2008 performance; reduce the motor vehicle accident rate by ten percent in 2009 versus 2008 performance.</li> </ul>
<b>Supply chain management</b> <ul style="list-style-type: none"> <li>» Achieve 100 percent completion of Screening Survey by existing external suppliers of pharmaceutical intermediates and compounds by end of 2008.</li> <li>» Achieve 100 percent completion of Merck's pre-selection Detailed Suppliers Ethical Assessment by potential suppliers of new business globally by 2010.</li> <li>» Develop formal mitigation plans for those items sourced externally that are critical to ensuring our ability to supply finished product without interruption. Have plans for 20 percent, 60 percent and 100 percent of our suppliers that fit within this category for 2008, 2009 and 2010, respectively.</li> <li>» Expand our supplier diversity reporting in the United Kingdom and Canada by 2010.</li> </ul>	<ul style="list-style-type: none"> <li>» Provided all existing external manufacturers with our guidelines and expectations, as well as Pharmaceutical Industry Principles for Responsible Supply Chain Management screening survey. Achieved an 81 percent response rate.</li> <li>» Performed EHS-specific evaluations of approximately 30 potential external manufacturers.</li> <li>» Worked toward increasing completion of Merck's pre-selection Detailed Suppliers Ethical Assessment by potential suppliers of new business.</li> <li>» Achieved 2008 supplier diversity goal of 14 percent of total applicable spend.</li> </ul>	<ul style="list-style-type: none"> <li>» Increase supplier diversity to 17 percent of total applicable spend in the U.S. and Puerto Rico by 2010.</li> <li>» Achieve 100 percent completion of Detailed Ethical Supplier Assessment by potential suppliers by 2010.</li> <li>» Implement annual supplier supplemental ethics standards training for each procurement employee by 2010, and develop a Supplier Code of Conduct by 2010.</li> <li>» By end 2009, achieve 100 percent completion of the Screening Survey by existing external manufacturers of pharmaceutical intermediates and compounds.</li> <li>» Develop formal risk mitigation plans where required for external manufacturers who require improvements to meet Pharmaceutical Industry Principles for Responsible Supply Chain Management.</li> </ul>

# Researching Needed New Medicines and Vaccines to Address Unmet Needs

Over the next ten years, the new developments in medical technology will most likely be “therapeutic systems” consisting of individual (e.g. geno-) typing, comprehensive information, a quality scheme, plus the medicine. Those “therapeutic systems” will extend beyond the use of medicines alone and may include life style and dietary guidance. All this will allow a more patient-specific application of medicines bringing increased therapeutic efficiency and safety. It will not yet be “personalized medicine”, but it will come very close. Current approaches to marketing will have to be replaced to some extent by the provision of services to patients and physicians.

In the context of these developments, and in the interests of helping to avoid a widening of the gap in access to health care, global pharmaceutical companies will have to demonstrate their global responsibility in facilitating the availability of high-quality medicines by participating in the development of new medicines and vaccines for patients in poorer countries. They will have to engage more in new ways of financing innovation and a new system of intellectual property rights application. Their experience and capacity will be needed to bring affordable high-quality medicines to all people. Taking a leadership role in this regard will be better than being forced into action.



**OTMAR KLOIBER**

Secretary-General,  
World Medical Association



...global pharmaceutical companies will have to demonstrate responsibility... [with] development of new medicines and vaccines for patients in poorer countries.



## 8

Merck is committed to addressing medical needs through scientific excellence and innovation. This is our primary responsibility and contribution to society.

It is also the key growth driver of our business. We invested almost \$5 billion annually on R&D in 2006, 2007 and 2008.

Our research and development agenda evolves as science advances and disease burdens change globally. At present, our work is driven through six major research franchises:

- » Atherosclerosis and cardiovascular disease
- » Bone, respiratory, immunology and endocrine disorders
- » Diabetes and obesity
- » Infectious diseases and novel vaccines
- » Neuroscience including Alzheimer's disease and pain
- » Oncology

Merck's R&D model is designed to increase productivity and improve the probability of success by prioritizing the resources of Merck Research Laboratories. Our research objectives and strategy are reviewed and approved annually by our Research Management Committee, chaired by the President, Merck Research Laboratories (MRL); we also seek input from external scientific experts to inform our decisions. In addition, the research strategy and goals of our franchises and functional departments are reviewed on a regular basis by the Research Strategy Review Committee, which includes input from external scientific experts, to ensure that our efforts stay properly focused.

All Merck employees must abide by our Code of Conduct (see p. 32), which also applies to the way we work with external researchers, doctors and academics. In addition, Merck has finalized new Guiding Principles for Business Practices Involving the Medical and Scientific Community (see p. 35). All activities involving the medical and scientific community that are sponsored by Merck should have a well-articulated purpose. Further, in November 2008 MRL implemented a Global Research and Development procedure that describes the types of engagement opportunities during which MRL staff may seek input from external scientists to inform the



**PETER S. KIM, Ph.D.**  
Merck Executive Vice President,  
and President of  
Merck Research Laboratories

One of Merck's great challenges – and the focus of Merck Research Laboratories (MRL) – is to develop and maintain a productive pipeline that effectively uses our expertise and experience to address many of the world's greatest burdens of disease. MRL is targeting key areas such as Alzheimer's, cancer, cardiovascular disease, diabetes and infectious disease. MRL's business model reflects our dedication to making scientific advances that can translate into improved health opportunities for a broad spectrum of citizens globally.

Evolving scientific and medical knowledge offers great opportunities, and we are investing in novel areas and innovative technologies that could lead to future breakthroughs. This is demonstrated by

our developing expertise and ongoing focus on genomics and RNA interference.

Merck is working hard to increase productivity by refining research priorities, focusing on safety, and diversifying R&D activities. This diversification is a result of internal as well as external efforts and we are pursuing external collaborations, strategic alliances and partnerships as an integral component of our R&D strategy.

MRL continues to build on our long history of bringing novel medicines to patients, and MRL scientists are passionate about their goal of discovering and developing innovative medicines that address major unmet medical needs.

« MRL's business model is dedicated to making scientific advances that can translate into improved health opportunities... »

development of MRL scientific strategy or operations from discovery through late-stage development. This procedure provides a consistent approach that ensures compliance with applicable laws, regulatory requirements and Merck policies.

#### R&D IMPACT AND PERFORMANCE

Medicines discovered and developed by Merck scientists save and improve countless lives around the globe. Thanks

to the approximately 11,000 people behind the life-enhancing discoveries of Merck Research Laboratories, we are among the world's most innovative institutions in the medical sciences for producing first-in-class medicines.

#### GENERAL R&D » PERFORMANCE DATA SUMMARY 2005–2008

GLOBAL	2008	2007	2006	2005
Merck's investment in R&D programs (US\$B)*	4.8	4.9	4.8	3.8
Number of people employed in the Company's research activities	11,000	11,700	11,400	12,400
Number of medicines and vaccines in pipeline (Phase I–III) and products under regulatory review	47	49	57	58
Initiated licenses for new technologies†	46	55	53	N/R
Filed U.S. patent applications	216	200	227	N/R
Number of products approved	1	2	5	2
Percentage of top 20 global burdens of illness addressed by our products and pipeline (as defined by WHO and excluding accidents, premature birth and self-inflicted injuries)	53‡	60	N/A	N/R

\* Research activities and investments include all Merck divisions.

† Includes acquisitions, research collaborations, and preclinical and clinical compounds.

‡ The decrease in 2008 is due mainly to the changing nature of the Global Burden of Disease as defined by WHO.

## CURRENT MERCK RESEARCH PIPELINE » (AS OF JULY 15, 2009\*)

PHASE I	PHASE II	PHASE III
<b>Alzheimer's Disease</b> V950	<b>Alzheimer's Disease</b> MK-0249	<b>Atherosclerosis</b> MK-0524A, MK-0524B, MK-0859 (anacetrapib)
<b>Cancer</b> MK-0752, MK-1496, MK-1775, MK-0226, MK-4827, MK-5108, MK-8033, V934/V935	<b>Anemia</b> MK-2578	<b>Cancer</b> MK-8669 (ridaforolimus)
<b>Cardiovascular</b> MK-3614	<b>Atherosclerosis</b> MK-1903	<b>Diabetes</b> MK-0431C
<b>Diabetes</b> MK-4074	<b>Cancer</b> MK-0646	<b>HPV</b> V503
<b>Endocrine</b> MK-6913	<b>Cardiovascular</b> MK-0736, MK-6621 <sup>†</sup> (vernakalant [oral])	<b>Migraine</b> MK-0974 (telcagepant)
<b>Infectious Disease</b> MK-3281	<b>Diabetes</b> MK-0893, MK-0941, MK-8245	<b>Ophthalmology</b> MK-2452 (tafluprost)
<b>Neutropenia</b> MK-4214, MK-6302	<b>Infectious Disease</b> MK-3415a, MK-7009, V419, V710	<b>Osteoporosis</b> MK-0822 (odanacatib)
<b>Pain</b> MK-4409	<b>Insomnia</b> MK-4305	
<b>Psychiatric Disease</b> MK-8368	<b>Osteoporosis</b> MK-5422	
	<b>Psychiatric Disease</b> MK-0594, MK-5757, MK-8998	
	<b>Respiratory Disease</b> MK-0476C, MK-0633	
	<b>Sarcopenia</b> MK-2866 (ostarine)	

\* Merck's most recent pipeline data can be found at [www.merck.com](http://www.merck.com).

† An affiliate of the Company has exclusive rights outside of the United States, Canada and Mexico to vernakalant [IV] for rapid conversion of acute atrial fibrillation to normal heart rhythm. On July 26, 2009, the Company submitted a Marketing Authorization Application to the European Medicines Agency seeking marketing approval for vernakalant [IV] in the EU.

In 2008, we advanced 31 candidates to the next clinical development stage. As of February 15, 2009, we had 47 candidates in Phase I–III development, nine of which were in Phase III.

In 2008, Merck gained U.S. approval for one new medicine and expanded the use of one medicine and one vaccine:

» EMEND for Injection, for the prevention of chemotherapy-induced nausea and vomiting was approved by the FDA in January 2008. EMEND for Injection provides a new option for day one, as a substitute for EMEND taken orally, as part of the recommended three-day regimen. Prior to the FDA decision, on January 11, 2008, the European Union (EU) granted marketing approval for EMEND for Injection, known as IVMEND in the EU, an action that applies to all 27 EU countries as well as Norway and Iceland.

» CANCIDAS, a novel drug for the treatment of fungal infections, received approval for expanded use in pediatric patients aged three months to 17 years with indicated fungal infections, in July 2008.

» GARDASIL, for the prevention of vulvar and vaginal cancers caused by HPV types 16 and 18, in September 2008.

TREDAPTIVE (CORDAPTIVE in Latin America), a lipid-modifying therapy for patients with mixed dyslipidemia and primary hypercholesterolemia, has been approved in 42 countries, including the European Union, as of August 2009. It is currently being launched in international markets and remains investigational in the United States.

Our dedication to basic research is a critical component of our research mission and overall philosophy. One measure of the effectiveness of our basic research programs and of our innovation capacity

is the number of patents we file in the United States. In 2008, Merck filed 216 original U.S. patent applications. The number of U.S. patents granted to Merck during that same period was 146. Many of these patents were related to compounds in various stages of development.

Merck's research pipeline continues to grow as we accelerate our discovery efforts. The chart above illustrates the status of our pipeline as of July 15, 2009.<sup>1</sup>

### EXPANDING OUR RESEARCH CAPABILITIES AND RESULTS

We believe that drug development is not an effort that can be successfully driven by an individual or just one company. Most cases of true innovation come from robust collaboration amongst individuals with diverse backgrounds and capabilities joined together by the idea of changing the course of human health. MRL recognizes advancements in scientific knowledge external to Merck and we are vigilant in leveraging, licensing



## RESEARCH POLICY ISSUES »

» *Genetic Research:* Genetic research examines how variations in the system of human biomolecules – such as DNA, RNA and proteins – affect disease and an individual patient's response to drugs. The advent of DNA sequencing methodology and other advances in biomedical technology have made it practical to initiate studies that attempt to understand which genetic determinants cause a disease or drug response. Merck scientists have a strong commitment to understanding how genes work and how they are linked to diseases and drug treatments.

» *Regenerative Medicines Research:* Some of the most advanced scientific technologies in regenerative medicine involve animal or human embryonic stem cells or stem cells developed through somatic cell nuclear transfer. Merck has been conducting

research into the biology of animal and human stem cells for more than a decade, because we believe that this could help identify important new medicines and therapies for treating or curing diseases such as Parkinson's disease and cancer. Merck is opposed to the reproductive cloning of human beings.

» *Animal Research:* To discover, develop, manufacture and market innovative medicines and vaccines that treat and prevent illness, laboratory animal research is indispensable for scientific and regulatory reasons. Merck is dedicated to the ethical and responsible treatment of all animals used in the development of medicines and vaccines.

For more information go to [www.merck.com/cr/newtechnologies](http://www.merck.com/cr/newtechnologies).

and acquiring new technologies and compounds that are consistent with our R&D strategy.

The majority of our research investment is in our in-house research but we are also committed to working with strategic partners who can help us achieve our research and financial objectives, particularly in view of an increasingly challenging regulatory and commercial environment. These external collaborations are a fundamental and ongoing component of our research and development strategy.

To this end, in 2007 Merck established our External Basic Research (EBR) division, MRL's newest, and virtual, laboratory. Focused explicitly on external sources of science and innovation, EBR is developing and implementing a strategy to expand the scope and size of Merck's early pipeline through collaborations with external partners. Like MRL's other research sites, EBR contributes to all stages of Merck's

discovery pipeline. The EBR portfolio includes partnerships worldwide, and drug discovery programs in all six of Merck's franchise areas, with a goal of delivering 25 percent of the early pipeline from external sources of science within three to five years. More at: [www.merck.com/cr/research](http://www.merck.com/cr/research).

Our external alliances range from targeted acquisitions to research collaborations, licensing preclinical compounds and clinical compounds and technology transactions. In 2008, Merck signed 46 external agreements to leverage innovative science that is conducted outside of Merck.

As we continue to expand and diversify Merck's scientific portfolio, we anticipate that our treatments will include not only medicines and vaccines derived from chemistry, but also biological medicines, which are large molecules produced using living organisms. In order to leverage our unique capabilities for biosimilar products and novel biologics,

in December 2008 Merck announced a new division – **Merck BioVentures (MBV)**. This division is aimed at developing biosimilar products that will capitalize on the upcoming patent expirations of many currently-marketed biologic therapeutics. It is anticipated that biosimilars will offer great value and improved access to these classes of medicines.

### SCIENTIFIC PARTNERSHIPS

The sharing of ideas across scientific disciplines enables Merck to continue to build on our culture of innovation. We encourage our scientists to collaborate with peers at the top private and public research institutions and to share the results of their research outside of Merck through publications and participation in professional meetings.

In addition, Merck collaborates with external researchers and other members of the pharmaceutical industry by participating in selected scientific consortia. Consortia are an important mechanism

## MERCK BIOVENTURES »

Merck BioVentures expects to have a well-diversified product portfolio across many clinical indications; we are committed to having at least five biosimilar products in late-stage development in 2012 and to launching at least six biosimilar products between 2012 and 2017. The Company has announced its plans to invest over \$1.5 billion in Merck BioVentures by 2015. The experience we are gaining with biosimilars and the proprietary technology that we continue to establish will further enhance our launch into novel biologics as well.

### GLYCOFI PROVIDES INNOVATION

A critical component of Merck's entry into biosimilars was enabled by the acquisition of a New Hampshire-based company named GlycoFi in 2006. Through the GlycoFi acquisition, Merck obtained a strong intellectual property position for the production of protein therapeutics, including monoclonal antibodies and vaccines, that are of a particular glycoform and constitute new compositions. We believe that the yeast-based platform may provide major scientific,

regulatory as well as commercial advantages compared to working with mammalian cells, since it will make it easier for us to control and assure quality. The ability to precisely characterize our proteins will be important to payors, physicians and patients – providing added choices from the available products for a given indication.

### THE FUTURE REGULATORY ENVIRONMENT

The regulatory landscape for biosimilars is still evolving. Because of the complexity of biologics, there exist regulatory concerns about a simple generic-type biosimilar approval process. We understand these concerns and, therefore, our strategy is to conduct a thorough development program, including a complete preclinical toxicology package and Phase III clinical studies for each of our biosimilars, and submit Biologic License Applications to obtain approval. We will, of course, adapt our approach as new legal requirements are implemented.



## MSD FRANCE, FOUNDING MEMBER OF THE NATIONAL ALZHEIMER'S FOUNDATION »

Almost 30 million people worldwide are affected by Alzheimer's disease, and this is estimated to quadruple to 120 million by 2050.<sup>2</sup> Because people with Alzheimer's disease become unable to care for themselves and require extensive assistance for numerous years, the economic impact on health and social systems is significant and growing. There is currently no cure for Alzheimer's and other forms of dementia. The few existing treatments can only improve symptoms or slow their progression in some people. More research is essential to fight this disease.

In France, the Government has identified Alzheimer's as a national priority, launching a *National Alzheimer's Plan (2008–2012)*, and establishing the *Foundation for Scientific Cooperation on Alzheimer's Disease and Related Conditions* to set up a national network of excellence in Alzheimer's research and treatment.

MSD France is a founding member of this Foundation and has committed \$5 million over five years to its financing. The Company will also share research and provide advisory scientific support to the *National Alzheimer's Plan*.

We believe that this public/private initiative will foster research into novel diagnostic methods and treatments that could prevent or halt



disease progression, and will help identify other ways to make improvements in patients' quality of life. Merck will also benefit from broader perspectives that can help inform our own research agenda and plans.

## PREDICTIVE SAFETY TESTING CONSORTIUM »

Merck is a charter member of the Critical Path Institute's Predictive Safety Testing Consortium (PSTC), and a leader in subsequently setting and delivering the group's objectives. This consortium established five working groups to identify and evaluate safety biomarkers that can be used to help bridge animal toxicology studies and early human trials. The first example of the consortium's success has been the data recently provided by the PSTC to the European Medicines Evaluation Agency and U.S. Food and Drug

Administration to support the qualification of seven biomarkers for monitoring certain specific acute drug-induced kidney injuries with markedly improved performance characteristics over previous measures (blood urea nitrogen (BUN) and serum creatinine). This submission also served to establish a standardized process with regulatory authorities that paves the way for subsequent safety biomarker qualifications.

by which researchers can work together on nonproprietary scientific challenges that are common to all parties. For more information, see box above.

### INTENSIFYING OUR RESEARCH INTO DISEASES PREVALENT IN THE DEVELOPING WORLD

Overall, Merck's R&D is closely aligned with global needs, and addresses more than half of the global burdens of illness as defined by the World Health

Organization (WHO). More at: [www.merck.com/cr/researchpriorities](http://www.merck.com/cr/researchpriorities). Working with numerous partners over many years, Merck has research programs relating to significant burdens of illness in the developing world, including malaria, tuberculosis, diarrheal disease, cervical cancer, and HIV and AIDS (including for pediatric use). More at: [www.merck.com/cr/access/developingworld](http://www.merck.com/cr/access/developingworld).

Merck's research has also resulted in MECTIZAN® (ivermectin) for the

treatment of onchocerciasis (river blindness), see p. 20. In 2009, Merck and DNDi (Drugs for Neglected Diseases initiative) entered into a collaborative agreement to facilitate the discovery and development of safe, effective, and affordable therapies for neglected tropical diseases (NTDs). For more information, see p. 20.

### CLINICAL RESEARCH AND DISCLOSURE OF RESULTS

Patient safety is our highest priority. Merck conducts clinical trials

## CLINICAL RESEARCH » PERFORMANCE DATA SUMMARY 2006–2008

GLOBAL	2008	2007	2006
Number of clinical trials per year registered at <a href="http://www.ClinicalTrials.gov">www.ClinicalTrials.gov</a> *	139	160	98
Phase II–V clinical trials initiated**† (in number of countries)	36 {62}	45 {54}	43 {49}
Manuscripts of clinical trial results and related papers submitted to peer-reviewed journals	235	172	172

\* Prior year data have been adjusted since reporting last year due to a change in methodology.

† Phase V trials are conducted to determine new uses for existing products and/or broader health and economic outcomes.

‡ We have modified this KPI from last year to report clinical trials initiated vs. clinical trials conducted.

## CLINICAL RESEARCH POLICY ISSUES »

- » *Pediatric Formulations and Indications:* Where appropriate, we are conducting clinical trials and seeking approval for pediatric indications and age-specific formulations. For a listing of all of our pediatric clinical trials in Phases I–IV, go to [www.ClinicalTrials.gov](http://www.ClinicalTrials.gov).
- » *Informed Consent:* Merck requires assurance that subjects and/or their legal representatives understand the procedures, use and disclosure of personal health information, use of biological samples, and risks/benefits involved in a clinical study, and that their participation is voluntary. Informed consent is obtained prior to initiation of any clinical study procedures. In the case that a prospective clinical study participant cannot read the form, the consent form may be read by a patient advocate, with consent documented and witnessed. More information at: [www.merck.com/cr/clinicalresearch](http://www.merck.com/cr/clinicalresearch).
- » *Working with External Collaborators:* Merck supports academic and community-based physicians and researchers in expanding clinical and scientific knowledge and in improving the understanding of the appropriate use of Merck products. After evaluating requests, Merck provides the external scientific community with drug, funding and/or human resources, in accordance with

laws and regulations and Merck's own Code of Conduct and related policies. For more information go to Contributions at: [www.merck.com/cr/clinicalresearch](http://www.merck.com/cr/clinicalresearch).

- » *Contract Research Organizations:* Before agreeing to work with an outside Contract Research Organization (CRO), Merck performs rigorous assessments and due diligence audits to ensure that the CRO complies with Good Clinical Practice (GCP) standards and is aligned with Merck's own Code of Conduct. Merck performs periodic audits of all existing CROs with which we do business. If we identify violations of the contract or GCP, Merck works with the CRO on a corrective action plan. If improvements are not made within a defined time period or if repeat violations occur, Merck will terminate work with the CRO.
- » *Compassionate Use Programs:* Merck has a new procedure for a compassionate use program that recognizes the importance of providing access to new treatments under development to certain patients. Merck may conduct a compassionate use program under the following circumstances: the disease is life-threatening or severely debilitating; no alternative treatments are available for patients; a patient is not eligible for a clinical trial; and a marketing authorization application is planned in the future.

worldwide; we rigorously study our products, working with regulators and healthcare professionals over many years to characterize the efficacy and safety profiles of our medicines and vaccines (for more information on safety issues, see p. 28).

Merck's clinical trials, fundamental to the development of innovative medicines and vaccines, adhere to laws and regulations for the protection of human subjects, including the International Conference on Harmonization –

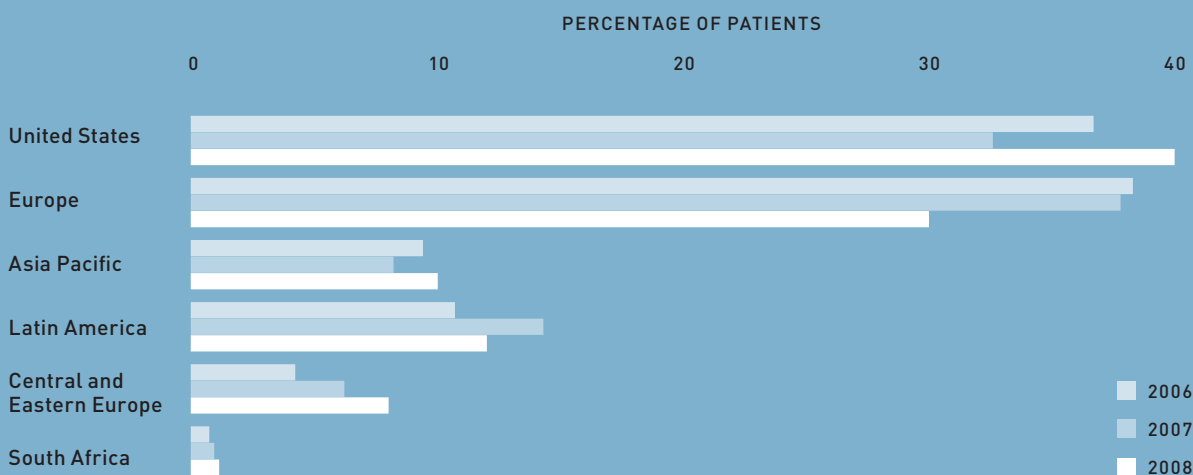
Good Clinical Practices (ICH–GCP) standards. More information on clinical trial conduct and governance at: [www.merck.com/cr/clinicalresearch](http://www.merck.com/cr/clinicalresearch).

Merck is committed to the timely registration of clinical trial information and disclosure of trial results – regardless of their outcome. We believe that clinical trial registries serve an important function for patients and their healthcare providers to learn about and gain access to relevant clinical trials of experimental treatments or preventative agents.

In response to physicians' and patients' requests for improved information, Merck registers clinical trials at [www.ClinicalTrials.gov](http://www.ClinicalTrials.gov) and has been posting results of clinical trials at the site since October 2008. Prior to December 2008, Merck posted results of clinical trials to [www.ClinicalStudyResults.org](http://www.ClinicalStudyResults.org). This provides patients and physicians with information about ongoing clinical trials that are open and recruiting patients and ensures that researchers who analyze, report or publish the results of clinical trials have timely information about

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## PHASE II–V\* CLINICAL STUDIES



\* Phase V trials are conducted to determine new uses for existing products and/or broader health and economic outcomes.

## MISE IN THAILAND »

In 2006, MISE launched an international program in the tsunami-ravaged areas of Thailand, in conjunction with MSD Thailand, the Kenan Institute Asia, and the Thai Ministry of Education. Known as the *Inquiry-based Science and Technology Education Program* (IN-STEP) and launched in Phang-nga with a \$500,000 commitment from Merck, the three-year initiative seeks to improve student performance in science through inquiry-based learning, and to develop a proven model for the Ministry of Education to replicate nationwide.

Since the program began, a team of MISE staff and educators from U.S. partner school districts and organizations has worked with local experts in Thailand to translate and adapt instructional materials from the United States that are consistent with Thailand's educational reform program. To date, the initiative has trained more than 125 Thai educators on these instructional materials. Thirty-six of the Thai teachers who received the training have used their new knowledge to teach workshops co-designed with IN-STEP staff.

In addition to the formal workshops, MSD Thailand has organized employee volunteers to assist teachers in the classroom; to date, more than 40 employees have participated.



our medicines and vaccines. Over 290 Merck clinical trial results were posted on [www.ClinicalStudyResults.org](http://www.ClinicalStudyResults.org) through December 2008.

In addition, we are committed to publishing the results from confirmatory clinical trials in peer-reviewed journals. In 2008, Merck submitted 235 manuscripts of clinical trial results and related papers to such journals.

Merck supported the revisions to the Pharmaceutical Research and Manufacturers of America (PhRMA) Principles on Conduct of Clinical Trials and Communication of Clinical Trial Results that were adopted in April 2009. We continually assess the changing global requirements and update our clinical processes and practices to ensure the Company is compliant. For more information, go to: [www.phrma.org/clinical\\_trials](http://www.phrma.org/clinical_trials).

### PROGRESS IN 2009

In 2009, we stated our intention to file three new drug applications with the U.S. Food and Drug Administration:

- » MK-7418, rolofylline, a potential first-in-class selective adenosine A1 antagonist being evaluated for the treatment of acute heart failure
- » MK-0974, telcagepant, our new, first-in-class oral calcitonin gene-related peptide receptor antagonist, which represents a new mechanism for the treatment of migraine
- » MK-0653C, a combination of ezetimibe, the active ingredient in

ZETIA, with atorvastatin, the active ingredient in Lipitor, as another treatment option for patients with high cholesterol.

On June 5, 2009, Merck reported that the preliminary results for the pivotal Phase III study of rolofylline (MK-7418) showed that rolofylline did not meet the primary or secondary efficacy endpoints, and that while Merck will continue to analyze the data with outside experts, the Company will not file applications for regulatory approval this year.

On April 21, 2009, Merck announced a delay in the U.S. filing of telcagepant (MK-0974), an investigational treatment for acute migraine. A new drug application is no longer expected to be filed with the FDA in 2009. A new timeline will be developed as additional information is available.

In July 2009, the FDA approved an expanded indication for ISENTRESS, our integrase inhibitor for the treatment of HIV-1 infection, that includes treatment-naïve patients. Prior to this, in October 2007, the FDA had granted ISENTRESS accelerated approval for use in combination with other antiretroviral medicines for the treatment of HIV-1 infection in adult patients who have evidence of viral replication and HIV-1 strains resistant to multiple antiretroviral agents (treatment-experienced patients).

We also anticipate regulatory action in 2009 on a supplemental filing submitted to the FDA for GARDASIL, our

HPV vaccine, for the new indication for use in males to prevent external genital lesions.

### FUTURE GOALS AND PRIORITIES

- » Merck will continue to grow its pipeline, with a focus on researching and developing first-in-class or best-in-class medicines and vaccines in targeted areas according to our R&D agenda.
- » For the longer term, we are committed to having at least five biosimilar products in late-stage development in 2012, and to launching at least six biosimilar products between 2012 and 2017.
- » We will continue to expand our engagement with public and private entities such as academic institutions and NGOs, to understand and support research priorities and opportunities, including for developing world diseases.

### FOSTERING SCIENCE EDUCATION

Fostering the next generation of scientific leaders is a key part of Merck's overall commitment to science and innovation. It is essential for the sustainability of our business to have access to the best-trained scientific minds globally, and it is essential for the economic development and well-being of the communities in which we operate.

Merck has a long history of promoting science education at the pre-college, undergraduate, graduate and post-doctoral

## MERCK INSTITUTE FOR SCIENCE EDUCATION (MISE) »

### PERFORMANCE AND IMPACT DATA SUMMARY 2005–2008

	2008	2007	2006	2005
<b>Merck investment in MISE (US\$M)</b>	3.9	3.4	3.4	3.3
<b>Student enrollment in grades pre-K–8</b> (NJ and PA MISE-supported school districts)	35,210	37,015	36,244	36,696
<b>Number of participants in the Academy for Leadership in Science Instruction</b>	136	N/R	N/R	N/R

levels. We have provided long-term, sustained support for programs that expand capacity for training in biomedical and health sciences. Our support continues today through activities that are driven through public/private partnerships with local, regional and national partners; rely on evidence-based approaches to learning; and undergo rigorous evaluation.

At the pre-college level, our key program is The Merck Institute for Science Education (MISE), established in 1993 as a non-profit organization dedicated to improving science education from kindergarten through 12th grade, and influencing education policy. MISE has made a significant impact on the character of teaching and learning science in its partner school districts, according to research performed over a 15-year period first by the Consortium for Policy Research in Education (CPRE) and subsequently by Horizon Research, Incorporated (HRI). It has become a model for how corporations can support the nation's STEM (science, technology, engineering, mathematics) education

objectives and make a lasting difference in education reform by committing to long-term partnerships focused on the specific goals of:

- » Developing and delivering research-based professional development opportunities to enhance teacher knowledge and skills;
- » Providing access to high-quality curriculum materials and resources;
- » Building communities within and across school districts that are committed to strengthening science teaching and learning within and across schools and school districts;
- » Promoting local, state and national policies that support effective science education.

In August 2008, MISE launched the Academy for Leadership in Science Instruction, a three-year professional development program for teachers, principals and district administrators enabling them to work as school- and district-based teams, and deepening their

understanding of the fundamentals of leadership and strong classroom science instruction. With more than 140 educators participating, the Academy is now the primary vehicle for professional development of partnership teachers, administrators and district staff, and this change will be reflected in increased Academy registration as the program continues to expand.

One of our major programs in higher education is our partnership with the United Negro College Fund (UNCF), which established the UNCF/Merck Science Initiative in 1995. This groundbreaking program seeks to expand the pool of world-class African-American biomedical scientists and, in so doing, to enhance economic competitiveness in the United States. The initiative also provides Merck with an opportunity to recruit from a more diverse pool of post-doctoral fellows in support of the Company's diversity workforce goals.

## UNCF/MERCK SCIENCE INITIATIVE »

Dr. Robert L. Satcher, Jr., M.D., Ph.D., a chemical engineer who is investigating a range of compounds that could be used for therapeutics, is a prime example of how the UNCF/Merck Science Initiative works to support African-American biomedical students. Dr. Satcher is an orthopedic oncologist who formerly treated patients at Northwestern Medical Center in Chicago, Illinois, and now conducts research on how bone cells respond to physical forces – a subject that led him to become a NASA astronaut so he could study it further.

"[The UNCF/Merck Science Initiative] provided me support for research at a critical time in my training," says Dr. Satcher, who was

a UNCF/Merck post-doctoral fellow in 1997. "Historically, we've not had much of a commitment in this country to encourage African-American talent in the sciences. This fellowship is an important part of the solution."

The program's dedication to mentoring fellows is critical. "Even though I went to a 'good' school and had support at home, there was still the potential that I wouldn't get it right," Dr. Satcher says. "Helping other young scientists realize their potential is key."

Dr. Satcher is scheduled to be a crew member on the November 2009 Space Shuttle launch to the International Space Station.

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OUR VALUES  
IN ACTION

1 Candidates shown in Phase III include specific products. Candidates shown in Phase I, II and III include the most advanced compound with a specific mechanism in a given therapeutic area. Back up candidates are not shown.

This chart reflects the Company's current research pipeline as of July 15, 2009. This chart has been excerpted from the Company's quarterly report on Form 10-Q filed with the SEC on August 3, 2009 and should be viewed along with disclosures in that filing.

2 Wimo A. Economic Impact of Dementia. 24th Conference of Alzheimer's Disease International, March 26, 2009.

SECTION  
ENDNOTES

## Improving Access to Medicines, Vaccines and Health Care

The health and physical well-being of people around the world depends on their access to drugs and vaccines that can effectively prevent, control and cure diseases. Unfortunately, there is limited research and development investment in many tropical diseases such as malaria or dengue, and therefore little prospect of new drugs being available anytime soon to treat these significant causes of illness and death.

There is also limited investment in ensuring that important medical breakthroughs translate into products that can treat different strains of disease or perform effectively in medical conditions in Africa. This requires drug-makers, for example, to produce meningococcal vaccines that address type A strains commonly found in Africa, as

well as type C strains that are found in industrial countries. Or a final product that has the shelf-life, stability or limited number of required doses to make it a robust, and usable product in low-income country settings where there are few trained medical staff and little health infrastructure in rural areas. Research-based pharmaceutical companies have a critical role to play in fostering the research, development and production of drugs and other medical products that have a very significant health value to the global community, and not just U.S. or European markets. These firms have the power to literally save millions of lives, and spur the economic and social development of families and communities worldwide.



**JOY PHUMAPHI**

Vice President for  
Human Development,  
World Bank



Research-based pharmaceutical companies have the power to save millions of lives, and spur the economic and social development of communities worldwide.



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As a global research-based pharmaceutical company, one of our top corporate responsibility priorities is to accelerate access to medicines, vaccines and quality health care worldwide.

We are doing this through a three-pronged strategy:

1. Discovering and developing breakthrough medicines and vaccines that address major burdens of illness globally (see p. 8).
2. Developing long-term business strategies and models tailored to the individual needs and circumstances of different countries such that our products reach the patients who can benefit from them wherever they may live, while also supporting the growth of our business. We also engage in philanthropic activities to support access to medicines and vaccines as well (see pp. 20–21).
3. Promoting and participating in partnerships with governments, multilateral organizations, community-based organizations, other corporations and NGOs to help build healthcare capacity, expand delivery systems and address specific health and development challenges, particularly in the developing world (see p. 18).

In addition, we seek to advance access to medicines, vaccines and health care through public policy and outreach activities that address barriers and challenges to healthcare delivery.

Merck maintains cross-company accountability for our access strategy, which is approved by our Executive Committee. Merck Research Laboratories determines therapeutic areas in which to focus, taking into account three main criteria: unmet medical needs and global burdens of illness, feasibility in terms of available knowledge and expertise, and commercial value. Merck's Manufacturing Division is investing in a robust, high-quality supply chain, as well as product formulations and packaging to meet the diverse needs of all populations, including the elderly, children and developing world populations. Global Human Health, including





**KENNETH C. FRAZIER**

Executive Vice President  
and President,  
Merck Global Human Health

We take very seriously the responsibility that we have, as a research-based pharmaceutical company, to both discover and make available the medicines and vaccines that can do so much for people around the world. We also know that access is determined by many inter-related elements, and have taken this into account in our own work and in how we work with others.

We engage in a wide range of public/private partnerships and other collaborations to spur progress for new approaches for diseases that affect developing and emerging market countries. This includes our royalty-free licensing agreement with Medicines for Malaria Venture, and our recently-announced collaboration with the Drugs for Neglected Diseases initiative to facilitate discovery and development of safe, effective and affordable therapies. We also have provided a royalty-free license for a promising microbicide to another

third party for research into possible antiretroviral (ARV) prevention strategies.

We have adopted a tiered pricing approach – one of the first in the industry – for our ARVs in order to foster greater access to these essential therapies. Through this approach and the efforts of our partners, approximately 650,000 patients in 131 countries and territories are being treated with regimens containing at least one of Merck's ARVs. We have now adopted a similar pricing approach for our vaccines for rotavirus and for prevention of cervical cancer, and are the only major pharmaceutical company to have committed to this pricing approach for a vaccine.

Sustainable solutions have only come from drawing on the expertise of all stakeholders, and we remain committed to fulfilling our responsibilities, from the bench to the beneficiaries.

« We engage in public/private partnerships and other collaborations to spur progress for new approaches for diseases that affect developing and emerging market countries. »

Merck Vaccines and Infectious Diseases, sets and achieves product access indicators and targets. Merck's Global Public Policy and Corporate Responsibility group advocates for reforms and legislation with both national and international authorities that will help expand access to medicines and health care. The Office of Corporate Responsibility collaborates with senior divisional and regional management on alliance development, health policy and other issues related to global health partnerships and access. More on our access strategy at [www.merck.com/cr/access](http://www.merck.com/cr/access).

Through this approach, Merck has been able to improve access to our medicines and vaccines throughout the developing world and emerging markets. In June 2008 we were recognized for our efforts when the newly launched Access to Medicines Index (ATMI) ranked Merck No. 3 among the world's largest pharmaceutical companies in promoting

universal access to medicines, and the only U.S. pharmaceutical company in the top seven.

#### **KEY CONSIDERATIONS FOR OUR ACTIVITIES**

In developing business strategies and models to improve access, Merck considers a wide range of policy issues and how best to address them, and what actions we can take, either directly or in partnership with others, to be most effective in achieving our goals. These policy issues include:

#### **REGISTRATION AND WHO PREQUALIFICATION**

Merck is committed to registering our medicines and vaccines in developing countries and emerging markets in parallel with developed countries to the extent permitted by local regulations; in this connection WHO prequalification is an important step in fostering access.

Merck received WHO prequalification for ROTATEQ in October 2008 and for MMR-II (Measles, Mumps, Rubella Virus Vaccine Live) in December 2008. In May 2009, GARDASIL was the first cervical cancer vaccine awarded WHO prequalification. STOCRIN,<sup>1</sup> CRIXIVAN and ATRIPLA,<sup>2</sup> our treatments for HIV/AIDS, have also received WHO prequalification. Merck is committed to working with WHO for the prequalification of ISENTRESS. As it is required by the prequalification process, Merck is awaiting the inclusion of ISENTRESS in WHO's Expression of Interest and will be ready to submit the necessary documents.

To increase the transparency of the Company's product registration status, we are disclosing registration for ROTATEQ, GARDASIL and our four antiretrovirals (ARVs) and updating this information every six months. More details at [www.merck.com/cr/accessvaccines](http://www.merck.com/cr/accessvaccines).

## PANDEMIC PREPAREDNESS – A-H1N1 INFLUENZA OUTBREAK »

In response to the A-H1N1 influenza outbreaks, Merck has been in ongoing contact with public health officials and international organizations to determine how best to contribute to the effort to combat this potential global health threat. Since many deaths in flu patients are due to a secondary bacterial infection such as pneumonia, Merck also assessed its ability to meet a potential increase in demand for PNEUMOVAX23, Merck's pneumococcal vaccine.

To help with the outbreak response in Mexico, Merck's Mexican subsidiary announced a donation of 80,000 doses of PNEUMOVAX23 (Pulmovax in Mexico) to Birmex, the state-owned vaccine facility of Mexico, for the immunization of healthcare workers in affected areas.

### RESPONSIBLE PRICING

Through our worldwide tiered pricing strategy, Merck is committed to making our HIV medicines and vaccines more affordable to more people by applying a differential pricing policy corresponding to countries' level of development and burden of disease. In the least developed countries of the world, Merck sells our ARVs as well as two of our vaccines, GARDASIL and ROTATEQ, at prices at which we do not profit. In middle-income countries, Merck provides our ARVs and vaccines at significantly reduced prices, taking into account factors such as relative level of economic development, relative burden of disease, government commitment to treating its population, and the value that Merck ARVs and vaccines have in the local marketplace. In high-income countries, we price our products at competitive prices, taking into account the value they provide. We believe that our pricing approach has contributed to improving access to our medicines and vaccines, while also taking into account Merck's need to continue to invest in research, development and production and to provide an attractive return to our shareholders. More on Merck's worldwide pricing strategy at [www.merck.com/cr/accessdevelopingworld](http://www.merck.com/cr/accessdevelopingworld).

### PATENTS

The overwhelming majority of medicines and vaccines considered essential by the WHO are not patented in the developing world; yet very few people in those countries have access to the medicines they need. A complex array of factors create practical barriers to access to care.<sup>3</sup>

Intellectual property protection provides a critical incentive for research-based pharmaceutical companies to invest in the research and development of new medicines and vaccines. Further, policies that support innovation, including R&D in the life sciences sector, are key drivers for national economic competitiveness and social prosperity. For these reasons we support and advocate for effective

intellectual property protection in developing as well as developed countries. We recognize the public health flexibilities contained in the WTO TRIPS agreement. If these exceptions become the rule, however, then incentives for innovation would be reduced in ways that could affect all countries and lead to a decline in biomedical innovation.

Merck supports the role of quality generic medicines in healthcare systems around the world. While we defend our intellectual property rights vigorously, we strive to do so in a manner that does not undermine access to medicines in countries where such medicines have been manufactured and may be sold free of intellectual property rights.

In December 2008, a shipment of generic Losartan, the active pharmaceutical ingredient found in COZAAR, a Merck antihypertension drug, was going through the Netherlands on its way to Brazil, and was seized on charges of patent infringement. The Dutch Authorities informed Merck, and Merck sent notifications of the Dutch patent violation to the carrier, the manufacturer and the importer from Brazil. In this case, Merck acted within its legal rights to enforce a valid patent in the Netherlands. As a policy matter, however, we should have taken greater consideration of the fact that the shipment was bound for a country in which Merck does not have patent rights. We have ensured that our policies and internal procedures have been clarified on this point.

### LICENSING

Merck considers issuing licenses for our medicines and vaccines to further increase their availability. To grant such licenses, however, we must first be certain of both the quality of the licensee's product and the ability of the licensee to provide uninterrupted supply. To date, Merck has granted royalty-free licenses for our ARV efavirenz to five South African generic manufacturers.

### EXTERNAL MANUFACTURING

Merck is committed to seeking ways to reduce the cost of our medicines and vaccines, and thus increase affordability and access. We work with external manufacturers and suppliers to achieve incremental efficiencies and to reduce or waive the royalty on vaccine doses sold in the developing world. In 2008, Merck reached an agreement with licensing partner CSL Limited whereby CSL agreed to waive Merck's royalties for sales of GARDASIL in the developing world to help expand access. CSL's decision to waive the royalties will result in lower prices and is an example of how industry partners can work together to develop sustainable solutions for vaccine access.

### PRODUCT DONATIONS

In our view, donating medicines and vaccines is not a sustainable long-term solution to the global challenge of access to medicines. However, we recognize that millions of patients have an immediate need for these products and cannot wait for solutions. For that reason, Merck remains committed to donating our products through the Merck Medical Outreach Program, the MECTIZAN Donation Program and through our U.S.-based Patient Assistance Programs. We also believe that, in well-defined circumstances involving informed partnership agreements and attention to sustainability of access, programs involving donated vaccines can help accelerate access to novel vaccines and drugs (see p. 23 for an example related to vaccine access in Nicaragua). Merck is committed to conforming fully to the WHO Guidelines for Drug Donations and to disclosing the U.S. wholesale value of drug donations per year. See p. 21 for more on these programs.

### PUBLIC/PRIVATE PARTNERSHIPS

A critical part of Merck's access strategy is promoting and participating in public/private partnerships (PPPs) with local communities, governments, NGOs, multilateral organizations and other corporations to address specific health



## THE MERCK MECTIZAN DONATION PROGRAM »

The Merck MECTIZAN Donation Program (MDP) is one of the most significant initiatives undertaken by Merck to help improve access to medicines in developing countries. Established more than 20 years ago, the MDP is the longest-running disease-specific drug donation program and public/private partnership of its kind in history, and is widely regarded as one of the world's most successful public/private health collaborations.

Onchocerciasis, or "river blindness," is one of the leading causes of preventable blindness worldwide, affecting mainly rural areas in sub-Saharan Africa and Latin America. In 1987, Merck announced that it would donate MECTIZAN, our breakthrough medicine for the treatment of onchocerciasis, to all who needed it, for as long as needed, to eliminate the disease as a public health problem. To facilitate the donation and delivery of MECTIZAN, Merck established a unique, multisectoral partnership, involving the World Health Organization (WHO), the World Bank and UNICEF, the Task Force for Global Health, as well as ministries of health, non-governmental development organizations and local communities.

In 1998, Merck expanded the Merck MECTIZAN Donation Program to include the prevention of lymphatic filariasis (LF), commonly referred to as elephantiasis, in African countries where the disease co-exists with river blindness.

Since the program began, Merck has donated more than 2.5 billion tablets of MECTIZAN for river blindness, with nearly 700 million treatments approved since 1987. The program currently reaches more than 80 million people through river blindness programs in Africa, Latin America and the Middle East (Yemen) annually. Additionally, 300 million treatments for lymphatic filariasis (LF) have been approved, with nearly 90 million treatments approved in 2008 alone.

To date, Merck has invested more than \$35 million dollars in direct financial support for the MECTIZAN Donation Program, in addition to \$3.9 billion worth of tablets. We estimate that Merck's donation



of MECTIZAN for river blindness will reach 100 million treatments annually by 2010.

In November 2007, public health officials announced that transmission of river blindness had been halted in Colombia, marking the first time that the disease has been eliminated as a public health problem on a country-wide basis anywhere in the world. In 2008, it was announced that 31 percent of the formerly at-risk population in the Americas is no longer at risk of contracting the disease. The success of the program in Latin America means that 74,476 people in 190 communities are now free of the threat of river blindness, and signals the potential for a future free of river blindness in all of the Americas. In a promising development toward elimination of river blindness in Africa, WHO's department of Tropical Disease Research is conducting studies to determine endpoints to stopping treatment with MECTIZAN in certain areas of West Africa.

More on the MDP, its performance and impacts at [www.merck.com/cr/mectizan](http://www.merck.com/cr/mectizan).

and development challenges beyond those which Merck can directly control. We have five decades of experience in developing PPPs to build healthcare capacity and expand delivery systems. The best known of these programs is the Merck MECTIZAN Donation Program (see box above), the first large-scale, comprehensive global health initiative of its kind. Merck has applied our experience with the MECTIZAN Donation Program to programs and partnerships

around the world, including the African Comprehensive HIV/AIDS Partnerships, that are helping to prevent and treat HIV/AIDS, other chronic conditions and vaccine-preventable illnesses. Information on specific partnership programs can be found throughout this report and on [www.merck.com/cr](http://www.merck.com/cr).

## IMPROVING ACCESS IN THE DEVELOPING WORLD AND EMERGING MARKETS

Merck has an ethical responsibility – and the ability – to help accelerate access to our medicines and vaccines in least developed countries where access is most lacking. In middle-income countries and emerging markets, we are undertaking opportunities to expand our business, while at the same time providing our medicines and

## ACCESS TO MEDICINES AND VACCINES » PERFORMANCE DATA SUMMARY 2005–2008

GLOBAL	2008	2007	2006	2005
Number of Merck products for which not-for-profit prices are offered to least developed countries	6	6	2	2
Millions of treatments approved for river blindness through the MECTIZAN Donation Program (at three tablets per treatment)	174.2	128	118	114
Product donations (US\$M)*†	766	766	768	979
(% in the developing world)	(77)	(79)	(58)	(45)

\* We value our product donations based on the U.S. wholesale price. Decrease in product donations is due in large part to decline in patient enrollment in our corporate U.S. Patient Assistance Program attributed in part to an increasing number of patients with prescription drug coverage (including through the Medicare Prescription Drug Program, which began in January 1, 2006).

† Includes Merck Medical Outreach Program (including ACHAP), MECTIZAN Donation Program and Merck U.S. Patient Assistance Program.

## EMERGING MARKETS »

Emerging markets will continue to provide significant growth opportunities for Merck. We are on track to achieve our goal of \$2 billion in sales from emerging markets by 2010, and we are determined to be among the top five pharmaceutical companies in the markets we are focusing on, which include China, India,

Korea, Russia, Turkey, Poland and Brazil. Merck is committed to creating and leveraging business opportunities in an innovative, responsible and sustainable manner that will drive revenue growth in emerging markets.

vaccines to new patients in a fair and responsible manner.

## HEALTHCARE CAPACITY-BUILDING

Merck recognizes that human resource capability-building is a major factor in addressing global health challenges. For this reason, we are engaged in a number of initiatives to address healthcare capacity-building in the developing world, focusing specifically on healthcare training. For example:

In 2009, with support from The Merck Company Foundation, the Earth Institute at Columbia University launched a community health worker training program to strengthen community health services for over 400,000 people in ten African countries as part of the Millennium Villages project ([www.millenniumvillages.org](http://www.millenniumvillages.org)). The initiative aims to advance the development of a professional cadre of approximately 800 community health workers to fill a critical gap in primary healthcare provision for rural communities throughout Africa.

In 2008, Merck began supporting Mothers2Mothers (m2m), an organization that addresses prevention of mother-to-child transmission (PMTCT) by employing mothers living with HIV ('Mentor Mothers') as peer educators and professional members of the healthcare team, in public health facilities in Kenya, Lesotho, Malawi, Rwanda, South Africa, Swaziland and Zambia. By the end of 2008, m2m had expanded to a total of almost 500 sites across Africa, employing 1,400 women living with HIV/AIDS as mentors and reaching more than one million people.

In addition, since 2003 Merck has helped increase the capacity of national immunization programs through the Merck Vaccine Network – Africa (see p. 23). For more on Merck's healthcare capacity-building activities in the developing world, go to [www.merck.com/cr/healthcarecapacity](http://www.merck.com/cr/healthcarecapacity).

DEVELOPING WORLD  
RESEARCH INITIATIVES

Merck has a long history of both in-house research and external research

partnerships in infectious disease areas that enable innovation in diseases of the developing world.

In January 2008, Merck and other pharmaceutical companies agreed to provide financial support for the WHO/TDR Partnership Network (Special Program for Research and Training in Tropical Diseases (TDR)), an independent global program of scientific collaboration. Potential collaboration involves industry grants to scale up TDR's network infrastructure for (1) maintaining capacities for drug testing in cell and animal models; (2) maintaining its database of drug targets and information on known "drug-ability" of the targets; and (3) evaluation and feedback to collaborating institutions.

In 2009, Merck and the Drugs for Neglected Diseases initiative (DNDi) entered into a collaborative agreement to support the discovery and development of improved treatments for a wide range of neglected tropical diseases (NTDs). Merck will contribute small molecule assets and related intellectual

## MERCK'S CONTRIBUTION TO ACHIEVING THE MILLENNIUM DEVELOPMENT GOALS »

One of the ways in which Merck measures its access performance is in relation to progress on the UN Millennium Development Goals (MDGs). We believe that the private sector, including the research-based pharmaceutical industry, has an important role to play in contributing to the achievement of the MDGs, particularly those focused on health. Listed below are just some of Merck's contributions with regard to the healthcare-related MDGs. More at: [www.merck.com/cr/access/mdgs](http://www.merck.com/cr/access/mdgs).

## » Reducing Childhood Mortality by 2015 (Goal 4)

- » Merck has developed and manufactured pediatric vaccines to help protect children from many of the most common and serious childhood diseases including chickenpox, measles, mumps, rubella, Haemophilus influenzae type b (Hib), hepatitis A and B, rotavirus and human Papillomavirus (HPV).
- » We participate in numerous public/private partnerships focused on improving childhood mortality and building capacity in immunization services to prevent childhood diseases, such as the GAVI Alliance, the Merck Vaccine Network – Africa, and the ROTATEQ Access Partnership.

## » Combat HIV/AIDS, Malaria and Other Diseases (Goal 6)

- » For more than 20 years, Merck has been at the forefront of the effort to respond to the HIV and AIDS pandemic, discovering and developing innovative treatments for the disease.
- » Since March 2001, Merck has had in place a differential pricing policy whereby infected people in those countries hardest hit by the HIV and AIDS pandemic and least able to afford treatment can obtain Merck ARVs at prices at which Merck makes no profit.
- » Through programs like the African Comprehensive HIV/AIDS Partnerships and our work in China and elsewhere, Merck has helped to establish trailblazing programs to address HIV and AIDS in countries around the world.

## » Developing Public/Private Development Partnerships to Improve Access to Medicines in Developing Countries (Goal 8, Target 4)

- » Merck has long been a pioneer in developing public/private partnerships to foster access to medicines and vaccines in developing countries around the world. A prime example is the Merck MECTIZAN Donation Program, which is widely regarded as one of the world's most successful public/private partnerships.

property via a non-exclusive, royalty-free license to DNDi to conduct early development programs for drug candidates for the treatment of NTDs, with the primary goal of manufacture and distribution of drug therapies at low cost to the public sector in resource-poor countries. Merck and DNDi will share joint intellectual property on drug candidates generated through early development, and Merck will retain the option to undertake late clinical development and registration of drug candidates.

In March 2009, Merck and Medicines for Malaria Venture (MMV), a not-for-profit virtual research and development organization dedicated to reducing the burden of malaria, announced a licensing agreement for an investigational drug candidate for the treatment of malaria in the developing world. Merck, whose researchers discovered the candidate, has granted MMV an exclusive, royalty-free license to pursue development of the investigational candidate for the treatment of malaria in malaria-endemic countries. Merck retains the option to become MMV's development partner upon completion of the first Phase II clinical trial of the candidate; at the same time Merck has committed not to profit from its sale in malaria-endemic countries.

In addition to Merck's own research efforts in HIV/AIDS, we have entered into partnerships with other researchers and scientific organizations to help accelerate the search for treatments and possible cures. Most recently, in March 2008, reflecting the Company's ongoing commitment to finding ways to prevent and treat HIV/AIDS, Merck granted the International Partnership for Microbicides (IPM) a non-royalty-bearing, non-exclusive license to develop, manufacture and distribute a novel ARV compound (L'644) for use as a vaginal microbicide in developing

countries to help protect women from HIV. The compound is the fourth we have granted to IPM since 2005.

For more on Merck's research efforts in relation to developing world needs, go to [www.merck.com/cr/researchpriorities](http://www.merck.com/cr/researchpriorities).

## RESPONDING TO IMMEDIATE NEEDS

To meet humanitarian assistance needs in the developing world and to support disaster relief and emergency situations worldwide, the Merck Medical Outreach Program (MMOP) is a critical vehicle through which Merck helps expand access to medicines and vaccines. The scope of the MMOP varies from year to year and is influenced by changing medical needs in developing countries, the quantity of Merck medicines available for donation, and the random nature of natural and man-made disasters. In conducting the MMOP, Merck adheres to the World Health Organization's (WHO) Guidelines for Drug Donations.

In 2008, Merck donated \$43.4 million in market value of medicines and vaccines through well-established partnerships to help patients throughout the developing world. These donations supported sustained chronic-care health programs in Central Asia; enabled immunization programs in Central and Southeast Asia, the Caribbean and Africa; provided disaster assistance in Myanmar, India, Honduras and the U.S.; and reached many thousands more worldwide through the ongoing medical programs of our partner private voluntary organizations. More on MMOP at [www.merck.com/mmop](http://www.merck.com/mmop).

## INFORMING PUBLIC DEBATES ON ACCESS TO MEDICINES IN THE DEVELOPING WORLD

To inform the public policy discourse related to access to medicines, vaccines

and health care in the developing world, Merck is engaged in a number of high-level fora, including The Medicines Transparency Alliance (MeTA). Established by the U.K. Department for International Development in 2008, the aim of MeTA is to build transparency and accountability around the selection, procurement, sale and distribution of essential medicines. Merck also served as a member of the Global Fund Technical Working Group (TWG) on In-Kind Donations, which was commissioned by the Global Fund on HIV/AIDS, TB and Malaria to examine the potential advantages and concerns associated with the Global Fund's acceptance of donations of in-kind goods.

To contribute to the debate on research in neglected tropical diseases and other diseases prevalent in the developing world, Merck has participated in numerous discussions, including the 2008 Infectious Diseases Summit in Washington, D.C., which focused on leveraging private-sector skills for health system development and capacity-building; the 2008 Partnering for Global Health forum, organized by Bio Ventures for Global Health and the Biotechnology Industry Organization (BIO) and sponsored by the Bill & Melinda Gates Foundation; and the Global Ministerial Forum on Research for Health – Mali in November 2008.

Merck has been a founding partner and active participant in several industry and multi-stakeholder efforts to promote policies to improve access to medicines and vaccines in the developing world. For more information, go to [www.merck.com/cr/accessdevelopingworld](http://www.merck.com/cr/accessdevelopingworld).

## FUTURE GOALS AND PRIORITIES FOR DEVELOPING AND EMERGING MARKET COUNTRIES

» We are on track to achieve our goal of \$2 billion in sales from emerging markets by 2010, and we plan to be among

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## MERCK MEDICAL OUTREACH PROGRAM » PERFORMANCE DATA SUMMARY 2005–2008

GLOBAL	2008	2007	2006	2005
Number of countries and territories reached by the Merck Medical Outreach Program	115	104	103	98
Total value of product donations (US\$M)*	43.4 <sup>†</sup>	125 <sup>‡</sup>	46	54
Number of disaster relief efforts assisted	5	6	2	4
Total value of disaster relief contributions (product) (US\$M)*	0.872	3.3	2.6	12.2 <sup>§</sup>

\* We value our product donations based on the U.S. wholesale price.

† Figure includes the value of donations to the African Comprehensive HIV/AIDS Partnership (ACHAP).

‡ 2007 was characterized by a large increase in requests from our PVO partners, as well as increased availability of pharmaceuticals and vaccines for their ongoing humanitarian programs and disaster relief efforts.

§ 2005 was unprecedented in terms of disaster relief and included efforts in the wake of the tsunami that struck Southeast Asia, hurricanes Katrina and Rita, a major earthquake in Pakistan and floods in Guatemala.

the top five pharmaceutical companies in the markets we are focusing on.

- » In 2009, we plan to expand our health capacity-building portfolio to include new projects and partnerships focused on healthcare worker training in the developing world.
- » We will continue our interaction with external stakeholders to understand key research priorities and opportunities, and to support those with relevant expertise and resources where possible.

## IMPROVING ACCESS TO VACCINES AND IMMUNIZATION IN THE DEVELOPING WORLD

Because of gaps in the healthcare infrastructure and workforce of the developing world, preventive measures such as

immunization programs are particularly critical to the health and economies of developing countries – but they are difficult to deliver. Merck continues to make progress in our mission of preventing disease and saving lives by bringing forward innovative vaccines, working with partners to make them accessible to those who need them around the world, and helping to build healthcare capacity in developing countries.

In 2006, Merck introduced ROTATEQ, a vaccine against rotavirus, a disease whose effects kill nearly 600,000 children each year, mainly in the developing world. By the end of 2008, ROTATEQ was approved in 87 countries, 15 of which are GAVI-eligible countries. Merck is sharing clinical data on ROTATEQ and rotavirus disease

epidemiology from studies conducted in 22 countries and in more than 80,000 infants and children with health authorities, governments, NGOs and physicians around the world.

Also in 2006, Merck introduced GARDASIL, a vaccine to prevent cervical, vulvar and vaginal cancers; precancerous or dysplastic lesions; and genital warts caused by the human papillomavirus (HPV). Cervical cancer is the second most common cause of cancer death in women worldwide, and greater than 80 percent of these deaths are in the developing world. By the end of 2008, GARDASIL was approved in 109 countries, many under fast-track or expedited review, of which 23 are GAVI-eligible.

## MERCK VACCINES » PERFORMANCE DATA SUMMARY 2005–2008

GLOBAL	2008	2007	2006	2005
Number of countries where Merck has committed to no-profit prices for ROTATEQ and GARDASIL	72	72	N/A	N/A
Number of low- and middle-income countries using Merck's vaccines in their public sectors	16	11	N/R	N/R
Number of vaccines approved, registered in number of countries	11 vaccines in 114 countries	11 vaccines in >100 countries	N/R	N/R
» Number of doses sold worldwide of ROTATEQ, GARDASIL and MMRII	55.9M	46M	N/R	N/R
» In high human development index (HDI) countries	52.6M	44M	N/R	N/R
» In medium HDI countries	3.3M	1.6M	N/R	N/R
» In low HDI countries	43,000	0	N/R	N/R
» In GAVI countries*	603,000	504,000	N/R	N/R
» Number of new country registrations of GARDASIL and ROTATEQ globally† (and cumulatively to date)	18 (196)	72 (178)	105 (106)	1 (1)
» In high HDI countries	6 (119)	31 (113)	81 (82)	1 (1)
» In medium HDI countries	11 (51)	28 (40)	12 (12)	0 (0)
» In low HDI countries	1 (17)	11 (16)	5 (5)	0 (0)
» In GAVI countries*	8 (38)	21 (30)	9 (9)	0 (0)
» Partnership data:				
» Merck investment in MVN–A (US\$)	800,000	1M	400,000	400,000
» Number of healthcare professionals trained through MVN–A	142	97	103	89
» ROTATEQ Access Program (Nicaragua):‡				
» Total doses of vaccines delivered as 1st, 2nd or 3rd dose	329,560	291,797	20,325	N/A
» Total doses of ROTATEQ delivered as 3rd dose (fully-vaccinated child)	106,700	87,611	0	N/A
» Vaccine coverage [% receiving 3rd dose of ROTATEQ] among Nicaraguan infants	81	80	0	N/A

\* GAVI list includes 72 countries that are eligible for funding; this includes countries that are classified as low HDI as well as some countries that are classified as medium HDI. Fifteen UN member countries are not included in the Human Development Index due to lack of data.

† Prior year data have been adjusted due to a change in methodology.

‡ As of 12/31/08.



## ROTATEQ ACCESS PARTNERSHIP »

Each year rotavirus kills more than 600,000 children under five, mostly in the developing world. In 2006, Merck and the Ministry of Health in Nicaragua announced a new public/private partnership at the Clinton Global Initiative through which all eligible infants born in Nicaragua in a three-year period would receive free doses of ROTATEQ, Merck's vaccine to help prevent rotavirus. Merck is also providing technical assistance for the duration of the program, and is working with the Nicaraguan Ministry of Health to strengthen Nicaragua's national rotavirus disease surveillance network and assess the public health benefit resulting from the early adoption and use of a rotavirus vaccine.

As of April 2009, Merck has provided nearly one million free doses of ROTATEQ to Nicaragua, and the country has achieved rates of

rotavirus vaccination that are among the highest in the world. The Ministry of Health reports that approximately 81 percent of eligible infants in Nicaragua were vaccinated with ROTATEQ in 2008 and that winter hospitalizations for diarrhea and dehydration have been considerably lower than in the past. By the end of 2009, the government hopes to achieve an 82–84 percent vaccination rate.

In addition to helping Nicaragua protect infants and young children from rotavirus, this program is adding to the evidence base supporting introduction of routine rotavirus vaccination in resource-poor countries, and has helped to inform access decisions in other countries. More at: [www.merck.com/cr/accessrotateq](http://www.merck.com/cr/accessrotateq).

## PARTNERSHIPS TO INCREASE ACCESS TO VACCINES

**GAVI ALLIANCE:** Merck is a founding partner in the GAVI Alliance, a public/private partnership committed to saving children's lives and protecting people's health by increasing access to immunization in poor countries. More at: [www.gavialliance.com](http://www.gavialliance.com).

**ROTATEQ ACCESS PARTNERSHIP:** Through this program launched in 2006, Merck introduced ROTATEQ in Nicaragua and enabled the country to establish rapidly a national rotavirus vaccination program to help protect infants from this potentially serious disease. More at: [www.merck.com/accessrotateq](http://www.merck.com/accessrotateq).

### GARDASIL ACCESS PROGRAM:

In 2007, Merck made a commitment to donate at least three million doses of GARDASIL, Merck's cervical cancer vaccine, to organizations and institutions in developing countries. The GARDASIL Access Program enables applicants from eligible lowest-income countries to gain operational experience in the design and implementation of HPV vaccination projects, with the goal of supporting the development of successful child and adolescent

immunization models in resource-poor and other countries. In 2008, more than 195,000 doses of GARDASIL were approved for donation; the first shipments of donated GARDASIL were sent to Bolivia, Cambodia and Lesotho during the first half of 2009. For more information, go to [www.merck.com/cr/accessgardasil](http://www.merck.com/cr/accessgardasil).

**MERCK VACCINE NETWORK-AFRICA (MVN-A):** As part of our commitment to the GAVI Alliance, in 2003 Merck initiated the Merck Vaccine Network-Africa (MVN-A), a multi-year philanthropic initiative to help increase the capacity of national immunization programs in Africa by supporting academic partnerships in the development of sustainable immunization training programs. Since 2003, more than 510 immunization managers in Kenya, Mali, Uganda and Zambia have completed MVN-A training and returned to their medical facilities to share their expertise and knowledge with colleagues. For more information, go to [www.merck.com/cr/mvna](http://www.merck.com/cr/mvna).

## FUTURE GOALS AND PRIORITIES FOR VACCINES AND IMMUNIZATION

» As we move towards 2010, Merck is looking forward to working with international groups such as the GAVI Alliance, WHO, PATH, UNICEF, the Pan-American Health Organization (PAHO) and others to facilitate introduction of our rotavirus and human papillomavirus vaccines in the world's poorest countries.

» Merck will begin reporting in 2010 the number of doses shipped through the GARDASIL Access Program.

» The ROTATEQ Access Partnership aims to achieve an 82–84 percent vaccination rate in Nicaragua by the end of 2009.

## IMPROVING ACCESS TO HIV/AIDS TREATMENT AND CARE IN THE DEVELOPING WORLD

For more than 20 years, Merck has sought to make a difference in the fight against HIV/AIDS, discovering and developing innovative treatments for the disease. Today we market four ARVs: CRIVAN, STOCRIN, ATRIPLA and ISENTRESS. Since our HIV products first reached the

## HIV/AIDS ACCESS » PERFORMANCE DATA SUMMARY 2006–2008

GLOBAL	2008	2007	2006
Number of patients on Merck ARV therapy – all formulations, all products (Percentage in developing world)	653,867* [76]	763,118 [91]	701,391 [93]
Percentage of total patients on Merck ARVs estimated to be children taking pediatric formulations	17	15	19
Percentage of total patients using Merck ARVs at prices which Merck does not profit	76	82	74
Percentage of total patients using Merck ARVs at significantly discounted prices	9	8	18
Number of countries and territories in which patients are on at least one formulation of Merck's ARVs	131	135	125

\* Although the 2008 figure represents a decrease to the number of patients on Merck ARVs, it is important to recognize that the number of patients in developing countries treated with generic ARVs – including those through cooperative efforts with AAI companies – has increased significantly.

## CHINA-MSD HIV/AIDS PARTNERSHIP (C-MAP) »

In 2005, Merck and the Government of China established the first large-scale, national comprehensive public/private partnership, known as the China-MSD HIV/AIDS Partnership (C-MAP), to address HIV/AIDS prevention, patient care, treatment and support. In support of China's Action Plan for Reducing & Preventing the spread of HIV/AIDS (2006–2010), the partners introduced the project in Liangshan Prefecture, Sichuan Province, with the aim of developing a comprehensive model that could be replicated in other provinces.

The Merck Company Foundation has committed \$30 million to support the partnership over five years; the Government of China, through the leadership of the Ministry of Health, is providing staff, facilities and equipment. The project is focused on six strategies:

- » Raising awareness and reducing discrimination among target populations through training and education
- » Deploying comprehensive, integrated risk-reduction approaches to reduce HIV transmission among high-risk populations
- » Establishing a service network to provide consecutive treatment, care and support to people living with HIV/AIDS
- » Providing support to orphans and families affected by HIV to alleviate negative social and economic impacts
- » Building capacity of healthcare workers and organizations and developing new anti-HIV strategies and techniques
- » Strengthening HIV surveillance, monitoring and evaluation systems and data management and analysis to track program implementation, assess program outcomes, and identify and apply best practices in a timely manner.

In 2008, C-MAP expanded to cover 62 counties/districts targeting 21 million out of 87.5 million total population in Sichuan Province. From 2007 through 2008, C-MAP launched 82 initiatives in support of its six core strategies. Through a variety of HIV educational programs, nearly two million people received up-to-date HIV information and training. To reduce the infection rate among high-risk



populations, more than 45,000 at-risk individuals, including injection drug users, commercial sex workers and STD clinic patients have undergone targeted HIV prevention interventions to encourage treatment, prevention, HIV testing and counseling through peer education initiatives. To increase the diagnosis of people living with HIV/AIDS and to provide timely counseling and referral services, C-MAP supported the efforts of Liangshan's Disease Control Center to establish 82 provider-initiated HIV testing and counseling (PITC) sites in 12 counties along with 22 testing and counseling sites for pregnant women in four counties for the prevention of mother-to-child transmission (PMTCT); nearly 96,000 people, including more than 17,000 pregnant women, have received HIV testing/counseling services through PMTCT sites.

In the first half of 2009, C-MAP continues to implement its 2008 Work Plan, which was significantly delayed by the Sichuan earthquake that occurred in 2008. In 2009 and 2010, the program will continue to ensure resources are focused in areas of greatest need, and provide support to solve capacity and manpower issues at local levels.

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market in 1996, we have worked to expand access to them both directly and in partnership with others, particularly for patients in countries that are the poorest and hardest hit by the pandemic.

Merck has had an intensive broad-based HIV/AIDS clinical research program since 1985 that has sought to address both treatment and prevention. In addition to Merck's active research and development programs focusing on novel ARV drugs, Merck has made a significant investment in HIV vaccine development. Beyond our own research efforts, we have entered into partnerships with other researchers and scientific organizations to help accelerate the search for new treatments and innovative prevention strategies. For details on Merck's long history of groundbreaking research in this area, go to [www.merck.com/cr/accesshivaids](http://www.merck.com/cr/accesshivaids).

Merck believes a relevant measure of the success of our ARV access strategy is the number of patients treated, and where they are treated (developing

versus developed countries). As of December 31, 2008, 653,867 patients in 131 countries and territories were being treated with regimens containing at least one of Merck's ARVs. Three out of four (76 percent) – or an estimated 498,845 patients – obtained these ARVs in the more than 80 countries in which we sell them at a price at which Merck does not profit. An additional nine percent received Merck ARVs in countries where they are offered at significantly discounted prices. Nine out of ten patients using Merck ARVs live in developing countries in Africa, Asia, Latin America and the Caribbean where the pandemic is having its most devastating impact.

Access to affordable HIV diagnostics and treatment for children is an urgent global health priority. According to UNAIDS, there are approximately 2.1 million children under the age of 15 living with HIV worldwide. As part of the Company's ongoing commitment to the fight against HIV/AIDS, Merck has developed certain pediatric

formulations for its ARVs. Of those being treated with Merck ARVs, as of end of year 2008, there were an estimated 111,471 children using pediatric formulations, representing 17 percent of all patients on Merck ARVs. We are currently engaged in a collaboration with the National Institute of Allergy and Infectious Diseases and others on a study of ISENTRESS in children and adolescents. We are also working in partnership with the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) Partnership for Pediatric AIDS Treatment to identify scientific and technical solutions to improve access to ARV treatment for children living with HIV/AIDS in resource-limited settings. For more information on pediatric formulations for our ARVs, see [www.merck.com/cr/accesshivaids](http://www.merck.com/cr/accesshivaids).

PARTNERSHIPS TO IMPROVE  
ACCESS TO ARVS

The most important factors for improving access to ARVs in the long term are strengthening healthcare infrastructure, ensuring adequate financing for health,

## FOSTERING HEALTH LITERACY IN SWITZERLAND »

Health literacy means having the skills to make decisions that are good for one's health.<sup>4</sup> For pharmaceutical companies such as Merck, improved health literacy contributes to better public understanding of disease prevention and management, and to building stronger, more sustainable health systems able to support continued healthcare innovation.

MSD Switzerland has been working with universities and others to support programs to raise health literacy levels in the country. In 2006, MSD sponsored a Swiss Health Literacy Survey which provided the first comprehensive picture of health literacy challenges in the country. With Health Promotion Switzerland, a foundation

supported by health insurers, MSD Switzerland initiated the "Health Literacy Alliance" in 2006, which advocates for health literacy in health policy and among the general public.

These activities have raised awareness of the importance of health literacy among the public and other stakeholders, and helped ensure the issue was included in draft preventative health legislation in 2008.<sup>5</sup> Health literacy has also been designated an objective of the Swiss e-health strategy.<sup>6</sup> These two important developments are beginning to provide a legal and institutional framework for improving health literacy in the future.

and helping to build local healthcare capacity through training and support. Public/private partnerships have a critical role to play in this process, drawing on the complementary expertise of all stakeholders – governments, international agencies, community organizations, donors, the private sector, NGOs, patients and others – to identify the most promising and efficient ways to address the impact of HIV/AIDS in a variety of resource-scarce settings. Merck is engaged in a number of partnerships worldwide, including:

### ACCELERATING ACCESS INITIATIVE (AAI):

Merck is a founding member of the AAI, a partnership between UNAIDS, the WHO, UNICEF, UNFPA, the World Bank and nine research-based pharmaceutical companies to broaden access while ensuring rational, safe and effective use of medicines for HIV/AIDS. As of September 30, 2008, some 773,803 patients in developing countries were estimated to be taking one or more medicines supplied at preferential prices by an AAI company. Although this figure is lower than in 2007, it is important to recognize that the number of patients in developing countries treated with generic ARVs – including those through cooperative efforts with AAI companies – has increased significantly.

### AFRICAN COMPREHENSIVE HIV/AIDS

**PARTNERSHIPS (ACHAP):** In 2000, the Government of Botswana, The Merck Company Foundation/Merck & Co., Inc., and the Bill & Melinda Gates Foundation established ACHAP to support and enhance Botswana's response to the HIV/AIDS epidemic through a comprehensive approach to HIV/AIDS prevention, treatment, care, support and impact mitigation. Since 2001, The Merck Company Foundation and the Gates Foundation have committed US\$106.5 million to the partnership. In addition, Merck agreed to donate its ARV medicines STOCRIN and

CRIXIVAN to Botswana's national ARV treatment program for the partnership's duration. In November 2008, Merck expanded its donation to include ATRIPLA and ISENTRESS. ACHAP has made a significant contribution to key aspects of Botswana's response to the HIV/AIDS epidemic and has served as a catalyst for the provision of urgently needed infrastructure, equipment, human resources, training and program support for the Botswana ARV program. The initiative has dramatically reduced mother-to-child transmission and reduced new infections among children by 80 percent, and has significantly improved blood supply safety. As of April 30, 2009, more than 126,000 patients were receiving ARV treatment; this is approximately 84 percent of the treatment-eligible population, significantly up from less than five percent when the program began and the highest coverage rate in Africa.

### CHINA-MSD HIV/AIDS PARTNERSHIP

**(C-MAP):** In 2005, Merck and the Government of China established a large-scale, comprehensive public/private partnership to address HIV/AIDS prevention, patient care, treatment and support (see p. 24).

A comprehensive summary of Merck's HIV/AIDS partnerships and programs can be found at [www.merck.com/cr/hivaidspartnerships](http://www.merck.com/cr/hivaidspartnerships).

### STAKEHOLDER ENGAGEMENT AND PUBLIC POLICY ACTIVITIES

Merck maintains an active dialogue with various stakeholders involved in HIV/AIDS public policy and outreach, including NGOs, patient groups, and scientific leaders, through specialized advisory boards, targeted feedback meetings, and through participation in various public policy fora and initiatives. As a member of the Private Sector Delegation of the Global Fund since 2002, Merck has been instrumental in

helping to expand the Global Fund's engagement with the private sector through co-investment, involvement in country coordinating mechanisms, policy development, resource mobilization and advocacy. We also engage with stakeholders at scientific and policy events, such as the second Global Experts Summit held in Vancouver in February 2009, which aimed to develop expert consensus on the research needed to optimize the individual and societal benefits of the public health approach to delivering ARV therapy.

### FUTURE GOALS AND PRIORITIES RELATING TO HIV/AIDS

- » Merck remains committed to continued R&D investment in new treatments for HIV.
- » We will continue to engage in creative partnerships that address the full range of factors affecting access to medicines and the impact of HIV/AIDS in resource-constrained settings.

### IMPROVING ACCESS IN DEVELOPED COUNTRIES

Even in industrialized countries, access to medicines can be hindered by lack of insurance coverage, bureaucratic reimbursement and pricing approval processes, and government policies that seek to cut costs but can often limit patient and physician choice. We believe increased access can be achieved through a strategy that combines pricing our products responsibly, and, where necessary, donating our products to those who lack healthcare coverage; advocating for healthcare reforms that will allow citizens greater access to treatment and care; and promoting and participating in public/private partnerships to address chronic and infectious disease and other complex health challenges.

### PUBLIC POLICY AND ADVOCACY

Merck is an active and responsible participant in the public dialogue



## U.S. PATIENT ASSISTANCE PROGRAMS\* » PERFORMANCE DATA SUMMARY 2005–2008

	2008	2007	2006	2005
Number of patients utilizing Merck's Patient Assistance Program (PAP)	250,285	350,000	540,240	730,000
Number of prescriptions filled under Merck's PAP (Millions)	1.5	>1.6	>3.4	6.9
Total value of Merck medicines dispensed under Merck's PAP† (US\$M)	174	116.5	326	542
Number of patients enrolled in Merck Prescription Discount Program	6,952	12,334	28,946	82,742
Number of enquiries to Merck's call center about PAP/discount program	347,557	328,724	526,640	1,025,659

\* Decrease in numbers due in part to an increasing number of patients with prescription drug coverage, including Medicare Prescription Drug Program.

† Totals include the Merck Vaccine Patient Assistance Program and are based on the U.S. wholesale price.

on healthcare reform, advocating for improving access to medicines, vaccines and quality health care, including reforms that support our ability to continue to research and develop new innovative products, and to promote access to medicines and quality care.

In countries with social healthcare systems, including most European countries and Canada, we understand the pressures on governments to improve public health while effectively managing limited healthcare resources. In these countries, we advocate for healthcare policies that address the interdependent goals of ensuring rapid access to new medicines and vaccines for patients who need them, using limited healthcare resources most efficiently, and supporting continued innovation and development of important new treatments. More on healthcare reform on p. 47.

In the U.S., Merck advocates for health system reform that relies on market-based competition to improve quality, control costs and continue to encourage the innovation that has made the U.S. system deliver some of the best and most effective health advances and care in the world. We feel reforms should address not only the issue of coverage but also the need to improve value,

promote efficiency and enhance the quality of care. To learn more about Merck's advocacy efforts on U.S. healthcare reform, go to [www.merck.com/healthcarereform](http://www.merck.com/healthcarereform).

### PHILANTHROPIC INITIATIVES IN THE U.S.

While donating medicines and vaccines is not a sustainable solution to the access challenge in the United States, Merck has several programs which make our products available to those who currently cannot afford them.

Through our **U.S. Patient Assistance Programs**, which began more than 50 years ago, Merck has provided more than 27 million free prescriptions and vaccines, representing a total value (Wholesale Acquisition Cost) of more than \$1.9 billion over the past seven years. Effective March 1, 2009, Merck increased the income limit to the Merck Patient Assistance Program to enable more people in need to receive Merck medicines for free. Patients now may qualify for the program if their household income is \$43,320 or less for individuals, \$58,280 or less for couples or \$88,200 or less for a family of four (previous income limits were \$21,660, \$29,140, \$44,100, respectively). The Merck Vaccine Patient Assistance Program provides Merck's

adult vaccines free of charge to uninsured adults age 19 or older who cannot afford their vaccines.

Merck experienced a 19 percent decline in patient enrollment in our corporate U.S. Patient Assistance Program (PAP) from 2007 to 2008; this compares to a 35 percent decrease from the previous year. Total prescriptions declined by 12 percent in 2008, while total value of products provided through Merck's Patient Assistance Programs decreased by five percent. The decline is attributed in part to an increasing number of patients with prescription drug coverage (including through the Medicare Prescription Drug Program, which began January 1, 2006). Another contributing factor to usage decline was the removal of one Merck product – FOSAMAX – from the product list in mid-2008 (six months after patent expiry) once patients had broad access to lower-cost generic equivalents.

**The Merck Prescription Discount Program**, launched in 2005, is available to the uninsured regardless of age or income, and offers easy access to discounts of at least 15 percent on many Merck medicines.

Merck also participates in the **Partnership for Prescription Assistance (PPA)**, the

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## THE MERCK MANUALS »

For more than 100 years, Merck has provided unbiased and independently reviewed health information resources to the public and to healthcare professionals, both directly and through non-profit operations established as independent enterprises. In 1899, Merck published the first edition of *The Merck Manual*, a 192-page resource book designed to aid physicians and pharmacists. Now in its 18th edition, *The Merck Manual* has been translated into 17 languages. In 1997, Merck created *The Merck Manual – Home Edition* to provide the benefits of *The Merck Manual* for the general public. In its second edition, more than three million copies have been sold and translated into 14 languages. As part of our commitment to ensuring that all who need and want medical information can obtain it, Merck provides the content of these and other specialized Merck Manuals on the web for free. Registration is not required, and use

is unlimited. *The Merck Manual* on the web is updated to ensure that the information is as current as possible.

From 2001 through 2008, Merck partnered with the International Council of Nurses (ICN) and Elsevier Science, the leading publisher of scientific reference textbooks, to help nurses working in remote areas of developing countries gain access to critical quality healthcare information. The ICN/Merck Mobile Library Program provided traveling libraries of health education and reference materials, including donated copies of *The Merck Manual – Home Edition*, in African countries. In addition to the ICN/Merck Mobile Library project, Merck has donated 60,000 copies of *The Merck Manual* to NGOs for distribution to physicians, nurses and community health workers throughout Africa.

	2008	2007	2006
Merck Company Foundation investment in MCAN (US\$M)	4.9	4.7	4.6
Subset of children enrolled in cross-site evaluation for clinical outcome across sites	849	63	N/A
Number of children/families who received asthma education through MCAN	1,670	1,144	1,036
Number of healthcare providers who received asthma education through MCAN	308	146	127
Number of community-based events	135	306	112

pharmaceutical industry initiative that brings together America's pharmaceutical companies, as well as doctors, patient advocacy organizations and civic groups to help low-income, uninsured patients get free or nearly free brand-name medicines. To date, the PPA has helped more than five million patients. More at: [www.MerckHelps.com](http://www.MerckHelps.com).

### PUBLIC/PRIVATE PARTNERSHIPS IN THE U.S.

To complement our donation efforts, Merck works in partnership with governments, multilateral organizations, community-based organizations, other corporations and NGOs to address specific health challenges beyond those over which Merck has immediate and direct control.

### THE MERCK CHILDHOOD ASTHMA

**NETWORK (MCAN):** Established in 2005, the Merck Childhood Asthma Network, Inc., (MCAN), is a non-profit, 501(c)(3) organization established to address the complex and growing problem of pediatric asthma in the United States. Funded by The Merck Company Foundation, the mission of MCAN is to support and advance evidence-based programs that improve the quality of life for children with asthma and their families and to reduce, through dissemination of effective interventions, the burden of the disease on them and society. MCAN supports competitive, peer-reviewed childhood asthma translational research specifically focused on the adoption of evidence-based treatment and prevention models that will improve access to and quality of

asthma healthcare services for children; enhance knowledge about asthma among affected individuals and the general public; foster asthma-friendly schools and communities; promote asthma-safe home environments; and reduce disparities in childhood asthma outcomes. MCAN supports childhood asthma programs in New York, Los Angeles, Chicago, Philadelphia and San Juan, Puerto Rico. The number of children and families receiving direct support through MCAN is growing steadily. At the same time, the number of healthcare providers who have received asthma education through the program has almost tripled in the last three years. For more on MCAN's activities, go to [www.mcanonline.org](http://www.mcanonline.org).

### THE MERCK ALLIANCE TO REDUCE DISPARITIES IN DIABETES:

To address the growing problem of healthcare disparities in the context of type 2 diabetes in the United States among minority, low-income and underserved adult populations, The Merck Company Foundation launched The Alliance to Reduce Disparities in Diabetes with a commitment of \$15 million through 2013. More on p. 58.

### FUTURE GOALS AND PRIORITIES RELATING TO IMPROVING ACCESS TO MEDICINES, VACCINES AND HEALTH CARE GLOBALLY

Merck is focused on addressing the following priorities:

» **HEALTHCARE REFORM:** We will continue to support actively health

system reform worldwide to help improve and accelerate access to medicines and vaccines.

» **IMMUNIZATION:** To inform and enable customer decisions, we will continue to work with partners to demonstrate the benefits using our newest vaccines and to assess immunization program effectiveness. Merck believes that outcomes data from ongoing demonstration projects will continue to show the public health and economic impact of our vaccines, as well as our medicines.

» **INTELLECTUAL PROPERTY:** Merck will continue to advocate at the national and international level for strong intellectual property protection in developing and developed country markets, coupled with growth in our efforts to expand our supply chain through qualified local business partners as a way to ensure affordable and high-quality supplies to all of our customers.

» **HEALTHCARE CAPACITY:** Lack of skilled healthcare professionals will continue to limit countries' ability to diagnose and treat disease and provide ongoing care to citizens. Merck will continue to work through partnerships to help strengthen healthcare capacity worldwide.

» **PARTNERSHIPS:** We will continue to pursue public/private partnerships (PPPs) and other collaborations to improve access to medicines and care in resource-constrained settings; in this connection, we will ensure all of our access PPPs have stated targets and effectiveness measures by the end of 2010.

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1 STOCRI (efavirenz) is marketed by Bristol-Myers Squibb under the tradename SUSTIVA in the United States, Canada and six European countries (France, Republic of Ireland, Germany, Italy, Spain and the United Kingdom). It is commercialized by Merck through its affiliate MSD in all other countries within the European Union and many countries outside the United States.

2 ATRIPLA is marketed by Bristol-Myers Squibb and Gilead in the United States, Canada and Europe. Merck and Gilead are working to register and distribute ATRIPLA in 106 developing countries around the world.

3 Attaran A. How Do Patents and Economic Policies Affect Access to Essential Medicines in Developing Countries? *Health Affairs* 2004; 23(3):155–166.

4 Kickbusch I and Maag D. Health Literacy. In: Kris Hegghehougen and Stella Quah, editors *International Encyclopedia of Public Health*,

Vol 3. San Diego: Academic Press; 2008. pp. 204–211.

5 Federal Office of Public Health, Draft law on Prevention and Health Promotion, at [www.bag.admin.ch/themen/gesundheitspolitik/00388/01811/01843/index.html?lang=de](http://www.bag.admin.ch/themen/gesundheitspolitik/00388/01811/01843/index.html?lang=de).

6 Federal Office of Public Health, eHealth Strategy, at [www.bag.admin.ch/themen/krankenversicherung/04108/index.html?lang=de](http://www.bag.admin.ch/themen/krankenversicherung/04108/index.html?lang=de).

## Ensuring Confidence in the Safety and Quality of Our Products

A current global challenge to the quality and safety of medicines is the proliferation of counterfeits. Appropriate regulations and enforcement mechanisms are needed to prevent counterfeit medicines reaching patients. However, given that this cannot currently be guaranteed, the risks of counterfeits should be communicated to patients and the public. Patients should be encouraged to buy medicines from trusted sources and to report any suspect medicines. Pharmaceutical companies can play a valuable role in raising awareness of the issue and working with patient groups, regulators and others to communicate risks and develop strategies to address the problem, including setting appropriate regulations.

Trust in medicines and medicines information is critical to ensuring patients can benefit from prescribed treatments. Research by the National Health Council has revealed that, while many patients are willing to accept a certain amount of risk, the main reason why people do not adhere to prescribed treatments is the fear of adverse side effects. Additionally, the International Alliance of Patients' Organizations (IAPO) has found that patients worldwide believe strongly in their basic right to participate in decisions about their health care, and to have full information about diagnoses and treatments to make the best decisions.

A collaborative effort of patient advocacy organizations and private industry on these issues can improve trust and increase adherence, making for a healthier population.



**MYRL WEINBERG**

President, National Health Council, and Board Chairman, International Alliance of Patients' Organizations (IAPO)



Trust in medicines and medicines information is critical to ensuring patients can benefit from prescribed treatments.



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Nothing is more important to Merck than the quality and safety of our medicines and vaccines.

### OUR COMMITMENT TO PRODUCT SAFETY

Although medicines and vaccines have many benefits, they are also associated with the risk of certain side effects. All medicines are associated with side effects, but not everyone will experience them. This is why pharmaceutical manufacturers make relevant risk information about their products available, enabling physicians to evaluate the risks as well as the benefits of any treatment in the context of their clinical judgment and discuss them with their patients. Through this process, physicians and patients can determine whether a given medicine is right for them.

### CLINICAL TRIALS

In accordance with comprehensive regulations and our own research policies, we test our products extensively

before they are marketed. Our clinical trials conduct adheres to International Conference of Harmonization – Good Clinical Practice (ICH–GCP) and our clinical trials are regularly inspected and audited. Merck conducts independent, periodic audits of the processes, computerized systems, technology and collaborative partners supporting Merck clinical development. In 2008, there were 42 audits to assess compliance with Good Clinical Practices (GCP) and pharmacovigilance (PV) regulations and guidelines, conducted by regulatory agencies, of Merck or clinical trial investigators. None resulted in critical observations and none resulted in the rejection of any clinical study or regulatory filing.

Through December 2008, we have posted the results of over 290 trials on [www.clinicalstudyresults.org](http://www.clinicalstudyresults.org). We register our clinical trials on ClinicalTrials.gov and have been posting the results of our trials on this site since October 2008. More on p. 13.

### POST-MARKETING STUDIES

Merck continues to research the effectiveness and safety profiles of our products on an ongoing basis. When appropriate, or as required by regulatory authorities, we conduct several types of studies after approval, including epidemiology studies to understand the types of patients utilizing our products as well as examine the effectiveness and safety profiles of many of our marketed products as they are used in clinical practice in several population-based healthcare systems. In 2008, we had eight ongoing



**WILLIE A. DEESE**

Executive Vice President  
and President,  
Merck Manufacturing Division

Merck is committed to providing the global community with quality products and a reliable supply of safe and effective medicines and vaccines. We maintain strict product quality standards in our manufacturing operations consistent with current Good Manufacturing Practices, and we maintain redundant supply chain safeguards to ensure the safety of our products no matter where they are manufactured in the world.

We agree that counterfeit pharmaceutical products constitute a serious and growing threat to public health. Industry, governments, regulators and enforcement agencies need to partner together to combat this problem. No one group can effectively combat this problem alone. As a result, Merck has in place a company-wide strategy to ensure the security of our supply chains, deter, rapidly detect and respond

to counterfeit activity, raise public and stakeholder awareness of the risks posed by counterfeits and deliver effective advocacy to increase enforcement and shape key regulatory requirements.

To further combat the growing counterfeiting issue, we work with governments, regulatory agencies, enforcement agencies, other pharmaceutical manufacturers, wholesalers, distributors, consumer groups and related organizations. We fully support increased enforcement of existing anti-counterfeiting laws and the adoption of new laws and regulations to further combat counterfeiting and to strengthen current enforcement and available penalties, to minimize opportunities for counterfeit products to enter the supply chain, and stakeholder efforts to achieve greater public awareness.



Merck is committed to providing the global community with quality products and a reliable supply of safe and effective medicines and vaccines.



postmarketing epidemiology studies to evaluate safety.

#### **ADVERSE EVENT REPORTING (AER)**

After a product has been approved and is being prescribed to patients, manufacturers are required to report to regulatory authorities adverse experiences they learn about from any source. We ensure adverse event information is entered into our global AER database and is submitted to regulatory authorities in a timely manner and in accordance with country-specific regulations. Merck has an extensive program in place to process and assess adverse experience reports. More at: [www.merck.com/cr/safety](http://www.merck.com/cr/safety).

#### **SAFETY INITIATIVES**

In late 2007, Merck's senior leadership launched the *SafetyMatters* initiative to investigate potential enhancements to our already robust approach for identifying and evaluating health outcomes of interest (HOIs) in connection with our marketed products. The goal of *SafetyMatters* is to explore and implement appropriate use of emerging technologies and methods for HOI identification and evaluation, and thereby further enhance post-licensure monitoring and evaluation of our marketed products.

Complementary to this is our work with the Observational Medical Outcomes Pilot (OMOP), a partnership between The Foundation for the National Institutes of Health, the FDA and PhRMA to explore the application of large claims and electronic health record databases to assist in the evaluation of the benefit/risk profiles of marketed medicines, and so improve drug safety monitoring. More at: [omop.fnih.org](http://omop.fnih.org).

#### **PRODUCT LABELING AND PRODUCT INFORMATION**

Ongoing oversight and monitoring of our product labels and information are a major focus of our safety efforts. To inform treatment choices and address safety

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## **PRODUCT SAFETY MANAGEMENT » PERFORMANCE DATA SUMMARY 2006–2008**

GLOBAL	2008	2007	2006
Number of GCP/PV audits by regulatory agencies of Merck or clinical trial investigators	42	35	36
Number of post-marketing epidemiology studies to examine safety (ongoing)	8	8	N/A



## ASK ABOUT MEDICINES »

Confusion about medicines can lead to their inappropriate use, which is potentially dangerous to patients and costly for health systems.<sup>1</sup> Studies have shown that encouraging patients to ask questions about their medicines and improving patient/doctor communication helps patients to use their medicines more effectively.<sup>2</sup>

In 2003, MSD UK helped to establish *Ask About Medicines*, a unique public/private partnership between stakeholders with an interest in the effective use of medicines aimed to encourage UK patients to ask specific questions about the medicines they are taking, about

possible alternatives and where to go for further information. Supporters of the initiative included the UK Department of Health, a wide range of patient, National Health Service, academic and professional organizations and the pharmaceutical industry.

After six years of operation, the organizers and MSD believe that sustainable changes have been made to patient involvement policy and practice. Having achieved its objectives, the initiative was dissolved in March 2009. However, the *Ask About Medicines* website and related resources are still available at [www.aam.org](http://www.aam.org).

questions, we believe in the importance of providing physicians and patients with communications about our products, their benefits and risks. By providing appropriate information about our products, and working with patient organizations and other stakeholders, we want to encourage better adherence to treatment and foster improved public health.

U.S.-Based Resources on the Safety and Effectiveness of Medicines and Treatments include:

- » U.S. Federal Drug Administration (FDA) Drug Index: [www.fda.gov/cder/drug/DrugSafety/DrugIndex.htm](http://www.fda.gov/cder/drug/DrugSafety/DrugIndex.htm)
- » The Physicians' Desk Reference web site: [www.pdrhealth.com](http://www.pdrhealth.com)
- » Merck's products website: [www.merck.com/product](http://www.merck.com/product)

If you live outside the U.S., please see local regulatory agency web sites for safety information about medicines prescribed in your country.

## QUESTIONS ABOUT MERCK PRODUCTS IN 2008

During 2008, post-marketing reports of adverse events drew interest from the media on the safety of GARDASIL, our vaccine to help prevent cervical cancer. Merck continues to evaluate all safety data in the context of its own post-marketing adverse experience database as well as its ongoing clinical trial database and provides post-marketing reports to regulatory authorities worldwide. In December 2008, after an updated review of all available safety data, the CDC reinforced their continued recommendation for vaccination with GARDASIL.<sup>3</sup>

Since the introduction of SINGULAIR in 1998, the Company has updated the post-marketing section of the prescribing information to communicate a range of adverse events reported with post-marketing use of the drug, including neuropsychiatric events. Merck will continue to work with the FDA to revise the prescribing information for SINGULAIR in the United States. Merck is confident in the efficacy and safety of SINGULAIR, which has been prescribed to tens of millions of patients with asthma and allergic rhinitis since its approval.<sup>4</sup>

## OUR COMMITMENT TO PRODUCT QUALITY

Merck is committed to providing the global community with quality products and a reliable supply of safe and effective medicines and vaccines. We maintain strict product quality standards and multiple supply chain safeguards to ensure the safety and supply of our products no matter where our medicines and vaccines are manufactured in the world. More at: [www.merck.com/cr/quality](http://www.merck.com/cr/quality).

All manufacturing facilities that Merck owns, operates and contracts with and any company from which we purchase formulated pharmaceuticals, active ingredients and sterile products, must comply with current Good Manufacturing Practices. Furthermore, all formulated products, and the active pharmaceutical ingredients they contain, that are marketed by Merck in the U.S. are produced in FDA-approved facilities, including facilities owned and operated by our suppliers. More on p. 54.

Over the past few years, Merck has experienced a number of challenges in manufacturing that have prevented us from being able to meet global demand for a number of our vaccines. We are working to correct these issues and to regain our position as a reliable vaccine manufacturer and supplier. In the past three years, Merck has invested over \$1 billion in new manufacturing resources to ensure that we have the long-term supply capabilities to meet public health needs around the world. More at: [www.merck.com/cr/quality](http://www.merck.com/cr/quality).

In early 2008, the FDA inspected Merck's West Point vaccines and biologics manufacturing facility. At the conclusion of the inspection, the FDA issued a report containing 49 observations from their visit. Subsequently Merck received a Warning Letter from the FDA dated April 2008.

Merck took the observations and the Warning Letter very seriously and committed to addressing all concerns to the Agency's satisfaction. Importantly, the issuance of the Warning Letter did not affect any available product or Merck's ability to continue to supply our vaccines.

In July 2008, Merck received a letter from the FDA closing out its inspection of the West Point facility. Following subsequent inspections by the Agency, we continue to work with the Agency in a cooperative manner to ensure that we have robust processes and procedures in place to produce vaccines and sterile products to the highest standards.

In 2008, Merck had no product recalls in the United States.

## PRODUCT QUALITY » PERFORMANCE DATA SUMMARY 2005-2008

	2008	2007	2006	2005
Number of product recalls in the United States	0	2	0	1

**MERCK'S ADVANCED FORENSIC LABORATORY »**

As part of our corporate anti-counterfeiting efforts, Merck maintains an advanced forensic laboratory that provides detailed analyses of suspected counterfeit products. Using a wide array of analytical tools, the forensic scientists use physical and chemical characterization methods to identify counterfeit products and

packaging, and, if possible, determine the common origin of counterfeit materials. Reports detailing these findings are shared with regulatory and/or law enforcement agencies, and may be used to support enforcement actions, legal proceedings, and other internal and external actions.

**STEPPING UP THE FIGHT AGAINST COUNTERFEITS**

Counterfeit pharmaceutical products are a growing global problem and a serious threat to public health. For Merck, maintaining patient safety and protecting our reputation are paramount, and are the principal goals underlying our corporate anti-counterfeiting strategy.

To achieve these goals, we work with government agencies, pharmaceutical manufacturers, wholesalers, distributors, consumer groups and related organizations in the global fight against pharmaceutical product counterfeits.

Merck maintains a comprehensive worldwide anti-counterfeiting program that has three goals: (1) secure the supply chains, (2) rapidly deter, detect and respond to counterfeit activity, and (3) raise public and stakeholder awareness of the risks posed by counterfeits, and deliver effective advocacy to increase enforcement and shape key regulatory requirements. In furtherance of the work that Merck has done in combating counterfeits and recognizing the growing nature of the counterfeit problem, in 2008, Merck's Executive Committee established an Anti-Counterfeiting Steering

Committee to oversee our global anti-counterfeiting strategy and ensure that our anti-counterfeiting goals are reached.

Merck has in place strict policies and procedures designed to keep our drug distribution system safe and secure, and to minimize any opportunity for counterfeit products to enter the supply chain. In the United States, we require customers to purchase our products directly from Merck or a Merck authorized distributor. In addition, we publish the names of authorized distributors on Merck's website, and we audit our distributors to ensure compliance with Merck's policies and procedures. In the European Union, Merck works with law enforcement agencies to detect and respond to counterfeit products, including importation or trans-shipment of counterfeit pharmaceuticals through the European Union. In a number of developing countries, Merck has provided training to Customs officials, in conjunction with the Pharmaceutical Security Institute.

Merck also supports and advocates for increased enforcement of existing anti-counterfeiting laws and the adoption of public policies to strengthen existing

laws and enforcement programs, including increased criminal and civil penalties for counterfeiters. In addition, we support the efforts of organizations such as the Partnership for Safe Medicines to educate the public about the risks of counterfeit medicines. For details on these efforts, go to [www.merck.com/cr/anticounterfeiting](http://www.merck.com/cr/anticounterfeiting).

**FUTURE PRIORITIES**

- » We continue to implement our vaccine supply manufacturing strategy as part of our commitment to restore Merck's reputation as a reliable global supplier of quality vaccines.
- » We continue to maintain strict product quality standards and multiple supply chain safeguards to ensure the safety and supply of our products no matter whether our medicines and vaccines are manufactured internally or externally.
- » We will continue to implement our corporate, proactive worldwide anti-counterfeit strategy, focused on securing the supply chain, detecting and responding to counterfeit events, and raising awareness of the risks of counterfeit pharmaceutical products.

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**ANTI-COUNTERFEITING » PERFORMANCE DATA SUMMARY 2005-2008**

GLOBAL	2008	2007	2006	2005
Number of investigations of suspected counterfeit Merck product	45	102	73	51
Number of substantiated cases of counterfeit Merck product	29	72	54	46

- 1 Department of Health. *Better information, better choices, better health: putting information at the centre of health*. DOH, London, 2004.
- 2 Nielsen-Bohman N, Panzer AM, Kingdig, DA Eds. *Health Literacy: A Prescription to End Confusion*. Institute of Medicine of the National Academies. National Academies Press, Washington, 2004.
- 3 [www.merck.com/newsroom/press\\_releases/products/2008\\_0708.htm](http://www.merck.com/newsroom/press_releases/products/2008_0708.htm). and [www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/ucm111280.htm](http://www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/ucm111280.htm)
- 4 [www.merck.com/newsroom/press\\_releases/product/2009\\_0612.html](http://www.merck.com/newsroom/press_releases/product/2009_0612.html)

## Conducting Ourselves Ethically and Transparently

Pharmaceutical companies that have built robust business ethics and compliance programs, like Merck, must now do more to evaluate the *effectiveness* of their systems. In other words, once policies are written and employees are trained, how do companies determine if anonymous employee hotlines, or stronger rules for marketing drugs to doctors, are achieving their desired ends?

Companies must also look further up and down their supply chains to combat entrenched business problems like bribery and corruption, drug counterfeiting and quality problems in drug inputs.

Finally, as the United States government re-opens the issue of healthcare reform, companies must beef up transparency of specific corporate and trade associations' lobbying positions. Such sunshine may defuse allegations of hidden backroom dealings, or undue corporate influence, which has tarnished what was once a "good guy" industry.



**ELIZABETH E. McGEVERAN**

Senior Vice President,  
Governance & Sustainable Investment,  
F&C Management Ltd.



Pharmaceutical companies must do more to evaluate the effectiveness of their business ethics and compliance programs...



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We believe that behaving ethically is not only the right thing to do; it has many advantages for us and helps promote a good global business climate. A reputation for ethical working practices not only helps to attract, motivate and retain talented individuals, but it also means that policymakers and other stakeholders are more likely to listen to what we have to say.

For Merck, as a highly regulated pharmaceutical company, ethical working practices without cutting corners help to ensure our regulatory compliance with laws and regulations and help result in significant contributions to medicine, patients and society.

### OUR VALUES AND STANDARDS

Ethics and integrity are underscored in the Company's code of business conduct, *Our Values and Standards*, first developed and distributed to Merck employees in 1999, and updated in 2002 and 2004. Our Code of Conduct

applies one standard of conduct to all employees worldwide and is available in 27 languages. Ethical business practices are a key measure in annual performance evaluations of all of our employees globally.

Merck's Code of Conduct (available at [www.merck.com/about/conduct](http://www.merck.com/about/conduct)) has

been designed to deter wrongdoing and to foster:

- » Honest and ethical conduct, including the ethical handling of actual or potential conflicts of interest between personal and professional relationships;
- » The protection of our confidential and proprietary information and that of our customers and vendors;





**JACQUELINE BREVARD**  
Vice President, Chief Ethics and  
Compliance Officer,  
Merck & Co., Inc.

Conducting ourselves ethically is a core value across the whole of Merck. We work hard not only to inform our employees about what constitutes ethical behavior, but also to hold ourselves accountable for ensuring those ethical business practices are implemented.

We are committed to scrutinizing, reporting and where necessary improving our ethics performance on issues of particular concern to our stakeholders.

We have recently established comprehensive, global guidelines for escalation, investigation, remediation and recognition of non-compliance events, and have implemented them across our different divisions and regions. Through these efforts, we can evaluate the effectiveness of our systems and help

ensure that events are escalated to the appropriate place within the Company, are properly investigated, and that the appropriate disciplinary action is taken, up to and including dismissal, when necessary. These guidelines also contemplate various types of positive recognition for those employees who bring issues and concerns to the Company's attention so that they can be addressed.

These efforts are not only in the interests of the patients and health professionals who rely on our products, but also underpin the sustainability of our business. For this reason, we work to ensure that our evolving ethics programs cut across cultures and mores, to drive standards higher and ultimately to uphold the most fundamental rights of people everywhere.

« We are committed to scrutinizing, reporting and where necessary improving our ethics performance on issues of particular concern to stakeholders. »

- » Compliance with Company policies, applicable governmental laws, rules and regulatory requirements;
- » Prompt internal reporting of violations of the Code;
- » Accountability for adherence to the values and standards set forth in the Code.

Merck's Office of Ethics develops and oversees global initiatives designed to deter illegal, unethical and improper behavior related to the Company's business, and has implemented several mechanisms to help ensure the highest standards of ethics and integrity across our business. In 2007, it launched a global compliance online training series to provide employees with tools and resources for making responsible business decisions. All employees worldwide are required to complete *Know the Code*, the first course of this series; new employees undergo this training within 30 days of joining Merck.

To date, 90 percent of Merck employees have completed *Know the Code* training, and we anticipate this will increase to 95 percent by the end of 2009. In 2008, we rolled out new and updated courses on anti-corruption and bribery, and financial stewardship. In 2009, we are implementing new and updated courses on the importance of raising concerns within the Company, conflict of interest, global trade compliance and safe harbor privacy.

An important component of Merck's corporate compliance program is our annual compliance review, which includes an annual conflict of interest certification and disclosure process, and compliance with key corporate policies. All directors, officers, managers and other selected Company employees must certify in writing the absence or existence of actual or potential conflicts of interest under this Conflict of Interest Policy. Our annual response rate to the disclosure statement on conflicts of

interest is high and we anticipate that we will reach 100 percent in 2009.

#### ADDRESSING MISCONDUCT

Like integrity of product, integrity of performance is a Merck standard wherever we do business, and ignorance of that standard is never an acceptable excuse for improper behavior. We make it clear that no act of impropriety advances the interest of the Company and no act of impropriety will be tolerated.

In 2008 we established comprehensive, global guidelines for escalation, investigation, remediation and recognition of non-compliance events, and implemented them across our different divisions and regions. These guidelines will help ensure the appropriate disciplinary action is taken, up to and including dismissal, when necessary.

## HELPING OUR EMPLOYEES DO THE RIGHT THING

Our employees worldwide understand that they should bring to the attention of management workplace issues of any type including potential violations of law, Company policy or the Company's Code of Conduct. Merck strives to provide a work environment that encourages employees to communicate openly with management, without fear of retaliation or retribution.

Over and above this, the Office of Ethics provides several channels for Merck employees worldwide to raise ethical questions or concerns. This includes the Merck AdviceLine, a telephone line available to employees around the world 24 hours a day, seven days a week, staffed by an independent organization, which allows employees to remain anonymous in accordance with applicable legal standards for employee-based hotlines, and to communicate in their local language to ensure accuracy of reported information. Calls to the Merck AdviceLine have almost doubled since 2006, due in part to greater awareness of the AdviceLine as a result of increased employee communications.

In addition, the Merck Ombudsman Program offers a "safe haven" for U.S.-based employees to express work-related issues without fear of retaliation. The number of calls to the Office of Ethics/Ombudsman has declined since 2005, possibly reflecting strengthened performance management processes, as well as a reduction in employee numbers as part of our restructuring program.

## FOSTERING A FAIR, TRANSPARENT AND OPEN ENVIRONMENT

We believe that behaving ethically has many advantages for our business. A reputation for ethical working practices not only helps to attract, motivate and retain talented individuals but it also means

that policymakers and other stakeholders are more likely to listen to what we have to say. For Merck as a highly regulated pharmaceutical company, ethical working practices without cutting corners result in real contributions to science, and they enhance our regulatory compliance. All of this together helps to promote a good climate for global business.

Merck's commitment to ethics extends beyond the Company's boundaries. We actively promote the development of codes and standards for ethical and transparent business practices that can help limit corruption, ensure fair and open competition and encourage a better business environment, all of which are essential to economic growth and improved standards of living. Merck also seeks to make a difference in the global business environment by supporting Transparency International and other organizations that work to eliminate corruption, promote transparency and foster the principles outlined in the Organization for Economic Cooperation and Development (OECD) Conventions against Corruption and Bribery.

In an effort to combat global corruption, the World Economic Forum Partnering Against Corruption Initiative (PACI) was formally launched by CEOs from the Engineering & Construction, Energy and Metals and Mining industries in January 2004. Prior to the 2008 annual meeting in Davos, Merck joined a global community of 138 companies from various industries and regions of the world that have committed to strengthening efforts to counter corruption and bribery through the PACI by signing a statement supporting the PACI Principles for Countering Bribery. Signing on to the PACI Principles is a natural extension of Merck's long-standing commitment to high ethical

standards and transparent business practices. By working across industries and continents to promote ethical behavior, we believe this initiative can help limit corruption, encourage fair and open competition, and lead to a better business environment.

## ETHICAL SALES AND MARKETING PRACTICES

In providing the best possible care to their patients, doctors use information from pharmaceutical companies and other sources to help inform prescribing decisions. Accordingly, Merck believes it is important to maintain informative, ethical and professional relationships between healthcare providers and pharmaceutical companies. We recognize that both our reputation for integrity and the trust our stakeholders place in us depend on our ethical practices. Our interactions with healthcare providers, other customers and consumers are governed by laws and regulations, as well as our long-standing global code of ethical conduct and guidance that is enforced through our global business practices and compliance program.

## INTERACTIONS WITH HEALTHCARE PROFESSIONALS

The changing healthcare environment demands that Merck changes the way it interacts with physicians globally. In 2008, we implemented a more customer-centric selling model that is designed to provide a competitive advantage, help build trust with customers, and improve patient outcomes. The strategy employs new technologies and moves away from the traditional frequency-based sales and marketing approach.

In June 2008, Merck implemented new Guiding Principles for Ethical Business Practices with the Medical and Scientific Community (see box next page), which are aligned with national

## ETHICAL BUSINESS PRACTICES » PERFORMANCE DATA SUMMARY 2005–2008

GLOBAL	2008	2007	2006	2005*
Percentage of required employees who took <i>Know the Code</i> training	90	90	N/A	N/A†
Percentage of response to disclosure statement on conflicts of interest	99.9	97	95	93
Number of calls to the Merck AdviceLine	151	149	77	80
Number of calls to Office of Ethics/Ombudsman	583	600	597	770
Percentage of substantiated (including alternative findings) allegations to concerns/issues raised in connection with our Code of Conduct through AdviceLine or Office of Ethics/Ombudsman‡	10.9	9.5	8.3	10.2

\* 2005 noted as baseline.

† *Know the Code* was first implemented globally in 2007.

‡ When Merck substantiates allegations of ethical misconduct, it imposes a variety of disciplinary actions on those responsible for the misconduct, such as dismissal from the Company, issuance of final written warning letters and financial penalties.

## MERCK GUIDING PRINCIPLES FOR ETHICAL BUSINESS PRACTICES WITH THE MEDICAL AND SCIENTIFIC COMMUNITY »

1. Focus interactions with the medical and scientific community on business and scientific objectives that support the Company's mission of putting patients first.
2. For Company-sponsored or supported activities, comply with all applicable laws, regulations and industry or professional codes of conduct of both the host country and the resident country of individual participants or organizations.
3. Compensate for services at fair market value, purchasing only those services that are required to address the business need at hand.
4. Ensure that offering something of value to members of the medical and scientific community does not have the appearance or the intent of influencing regulatory, formulary pricing or reimbursement decisions or inducing or rewarding the referral, recommendation, utilization or prescribing of Merck products.
5. Maintain a business-like atmosphere for all interactions with the medical and scientific community, avoiding lavishness or extravagance, as well as the appearance of such.
6. Ensure that decision-making regarding activities associated with grants, payments for services to the medical and scientific community, and the generation and reporting of clinical information is free of any inappropriate commercial or other influences.
7. Apply good business judgment to all communications and documentation involving our interaction with the medical and scientific community, and ensure proper implementation of activities.
8. Conduct activities and interactions with the medical and scientific community in a manner that protects our intellectual property and respects that of others.
9. Ensure that all communications shared with the medical and scientific community are based on accurate and balanced scientific information.
10. Ensure that selection of experts from the medical and scientific community is based on their areas of expertise, experience and other appropriate, objective criteria aligned with the stated purposes of the activity.

regulations worldwide, industry codes and the World Health Organization's Ethical Criteria for Medicinal Drug Promotion. The new Merck Guiding Principles serve as a bridge between country laws, regulations, industry guidelines, and the Company's *Values and Standards*, and are intended to enable interactions with the medical and scientific community that comply with our ethical and legal obligations and improve human health.

Merck has also actively supported the strengthening of related industry standards. In 2008, in his role as Chairman of PhRMA, Merck Chairman, President and CEO Richard T. Clark worked with other PhRMA member companies to revise the PhRMA Code on Interactions with Health Care Professionals to respond substantively to stakeholder concerns regarding the industry's sales and marketing practices in the United States. In 2009, Merck updated our own sales and marketing policies and practices in compliance with the revised PhRMA Code. We completed self-certification of our compliance policies and procedures in early 2009, and we also plan to

pursue external verification. More at: [www.phrma.org/code\\_on\\_interactions\\_with\\_healthcare\\_professionals](http://www.phrma.org/code_on_interactions_with_healthcare_professionals).

Merck is committed to the highest ethical sales and marketing standards wherever it operates. We have developed a process to assess risks associated with sales and marketing-related business practices and processes, benchmarked to industry best practices. It has been implemented so far in 29 countries around the world. By the end of 2009, it will cover all major country operations.

In 2008, Merck reached civil settlements with Federal and State authorities to resolve long-standing investigations related to disputes over the proper calculation of Medicaid rebates as well as certain past sales and marketing activities that ended in 2001. As required by the Corporate Integrity Agreement (CIA), on May 15, 2009, Merck submitted its first Annual Report to the U.S. Department of Health and Human Services Office of Inspector General (HHS-OIG). For additional details, please see our Form 10-K for years ending December 31, 2007 and December 31, 2008.

### PROMOTIONAL AND EDUCATIONAL MATERIALS FOR HEALTHCARE PROFESSIONALS

The basis of our interactions with healthcare professionals is to provide truthful, balanced and non-misleading information. Accordingly, the review and approval of global promotional and educational materials for healthcare practitioners follows a comprehensive and strict process as specified in International Medical Media Standards (IMMS) guidance. At Merck all such materials are reviewed and approved by medical and legal personnel, captured in a global database, and assigned a unique identifying number and expiration date to facilitate usage monitoring.

Merck developed two new training programs in 2008 relating to interactions with healthcare professionals. All regional and country medical personnel involved in the review and approval of promotional/educational material receive comprehensive training that focuses on Corporate policies, IMMS, the medical reviewer role, and required database functionalities.

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## ETHICAL SALES & MARKETING PRACTICES » PERFORMANCE DATA SUMMARY 2005–2008

	2008	2007	2006	2005
Number of warning letters or untitled letters from DDMAC* or APLB†	0	N/R	N/R	N/R

\* DDMAC – U.S. FDA Division of Drug Marketing, Advertising and Communication.

† APLB – Advertising and Promotional Labeling Branch ("APLB") of the FDA Center for Biologics Evaluation and Research.

## INCREASED TRANSPARENCY REGARDING FINANCIAL SUPPORT

In some cases, Merck provides grants to organizations for professional education initiatives, including accredited continuing medical education (CME). As part of our broader policy of increased transparency regarding support of third-party groups, in October 2008, Merck began reporting grants over \$500 provided by the Company's Global Human Health division to U.S. organizations in support of independent accredited educational programs for healthcare professionals. In 2009, we have expanded this disclosure to include other types of grants.

While disclosure of supported patient organizations became mandatory in Europe in March 2009, Merck has voluntarily disclosed support to patient organizations in Europe, Middle East and Africa made by Merck offices in those regions since 2008. In addition, in the second half of 2009, Merck plans to begin reporting payments made to patient organizations by Merck operations in Canada from 2009 onward. Also in 2009, Merck operations in Europe, Middle East, Africa and Canada plan to begin disclosing grants to other third-party institutions made beginning in January 2009.

Merck also supports broader disclosure of financial relationships between physicians and the pharmaceutical industry. In 2008, Merck endorsed the Physicians Payment Sunshine Act, mandating disclosure of these financial relationships. In the absence of a legislative requirement, we plan to voluntarily disclose in the fourth quarter of 2009 all payments to U.S.-based healthcare professionals who speak on behalf of Merck or our products. For more information on Merck's transparency initiatives, go to p. 48.

## INFORMING PATIENT CHOICES

Merck strives to enable consumers to achieve better health outcomes by delivering accurate, relevant information on disease prevention, identification and treatment in an understandable manner. To remain true to this goal, Merck adheres to the letter and spirit of FDA regulations and guidelines governing direct-to-consumer (DTC) promotion, ensures all PhRMA guidelines are met or exceeded, and follows a comprehensive set of internal policies and practices when engaging in DTC advertising. Merck has a long-standing policy to

submit new DTC advertising campaigns voluntarily to the FDA for their review and comment prior to running any DTC campaign in the United States.

In 2008, Merck began to include in all new Merck DTC print and television advertisements, information on Merck's Patient Assistance Programs along with a toll-free phone number for more information. To formalize our historical practice of informing healthcare professionals about our products before we advertise them to the consumer, we also adopted a policy requiring a minimum six-month time period following the approval of a new product before launching DTC broadcast advertising in the United States. In addition, Merck carries out comprehensive programs to educate physicians and other prescribers about a new product before commencing product-specific DTC broadcast advertising. More on our DTC policies and practices at: [www.merck.com/cr/ethicalmarketing](http://www.merck.com/cr/ethicalmarketing).

## RESPECTING AND PROMOTING HUMAN RIGHTS

Merck is committed to respecting human rights, as recognized by the United Nations Global Compact and as defined in the United Nations Universal Declaration of Human Rights and its subsequent changes, the International Covenant on Economic Social and Cultural Rights, the International Covenant on Civil and Political Rights, the OECD Guidelines for Multinational Enterprises and the core labor standards set out by the International Labor Organization (ILO).

Respect for human rights is embedded in the Company's code of business conduct, *Our Values and Standards*. We do not tolerate human rights abuses in our workplace or commercial operations, or by our suppliers or business partners, and are committed to complying with national and international human rights laws and treaties. Further, we believe we have a responsibility to go beyond essential legal requirements and to support the promotion and protection of human rights through positive measures, including public/private partnerships that address critical global health challenges.

## OUR SPHERE OF INFLUENCE

Merck is committed to upholding human rights both within our workplace and within our broader sphere of influence. Merck's human rights sphere of influence includes:

**OUR EMPLOYEES:** We respect the human rights of our employees as established in the ILO's Declaration of Fundamental Principles and Rights at Work. We have systems in place to report incidents of discrimination and procedures for follow-up action, and regularly monitor and report on any operations where we might find significant risk for child labor or forced compulsory labor. To date, we have not identified any significant risks.

In 2008, Merck appointed a new Senior Director, Global Labor Relations, who has overall responsibility for developing our labor policy and management compliance system globally. We also began a process to establish global labor guidelines and monitoring tools to ensure consistency worldwide; at the time of this writing, we were on track for approval and implementation by the end of 2009.

## SUPPLIERS, DIRECT BUSINESS PARTNERS AND OTHER THIRD- PARTY REPRESENTATIVES:

Merck has implemented a Detailed Supplier Ethical Assessment tool, which lays out the Company's detailed ethical requirements of suppliers across a wide range of regulatory, legal and ethical compliance topics, including labor and employment practices. Merck is also one of the founding members of the Pharmaceutical Supply Chain Initiative designed to help ensure that working conditions in the pharmaceutical supply chain are safe and that workers are treated with respect and dignity. More on p. 54.

**COMMUNITIES:** We strive to serve as a positive influence in the communities in which we operate, and to respect human rights both in these communities and on a global basis. As a global corporate citizen, we go beyond the essential legal requirements to work with partners including governments and other stakeholders to support human rights – through offering medicines and vaccines that can help save and improve lives, through public policy advocacy with governments to ensure they live up to their international human rights obligations, and through public/private partnerships.



## HEALTH AS A HUMAN RIGHT: WHAT IS OUR ROLE? »

Much attention has been given to the role of pharmaceutical companies in ensuring the realization of health as a universal human right, as recognized in the United Nations Universal Declaration of Human Rights (UDHR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR). Governments, in their role of protecting human rights, have the primary responsibility for managing a health system that ensures the health of those living within their borders, a role that is recognized in the UDHR and the treaties that follow from it.

The role of the pharmaceutical industry in respecting and promoting this human right is a complex – and controversial – one. We believe that at a basic level we play an important role in supporting this right through our core activity of discovering, developing and delivering medicines and vaccines to address unmet medical needs. We also recognize our ethical duty to support governments in their efforts to respect the right to health by “doing no harm.” We do this in a number of ways, including by:

- » Monitoring and reporting on the safety of our products
- » Providing healthcare providers and consumers with important information on the benefits and side effects of our products

» Safeguarding the health, safety and privacy of patients involved in our clinical trials

Beyond these efforts we also have the ability – and we believe the responsibility – to take positive steps to support the right to health and effect positive change. These steps include policies and actions around product registration, pricing, patenting and partnerships, as well as public policy advocacy, that seek to strengthen healthcare capacity and address deep-rooted and multi-faceted barriers to access in ways that are aligned with our business mission and core capabilities.

Others have roles and responsibilities too. Industrialized countries, where most research in life sciences takes place, must continue to foster innovation by funding basic research and supporting related institutions, and by recognizing the value of innovative medicines and vaccines. Developing countries must continue to make health care a budget priority, remove taxes and import duties on medicines that unnecessarily raise the price of medications, and seek to limit product diversion to richer countries by price arbitragers. Emerging or middle-income countries should do the same and also recognize that they can and should pay more for medicines than the poorest countries, rather than take actions that remove incentives for innovation.

## UPHOLDING DIGNITY AND RESPECT

Merck believes in the fundamental dignity of every human being and in respecting individual rights in all of our operations.

- » We condemn the use of forced labor and exploitative child labor and expect the same of our suppliers.
- » We respect employees’ lawful freedom of association.
- » We compensate our employees fairly to ensure that basic needs are met and provide our employees with the opportunity to improve their skills and capabilities.
- » We do not discriminate at any level of the organization on the basis of race, gender, age, ethnicity, national origin, sexual orientation, marital status, disability, genetics or religious beliefs.
- » We provide a safe and healthy work environment.
- » We respect individuals’ right to privacy in accordance with legal and ethical standards.

discussions with stakeholders to gain agreement on the appropriate role of business in promoting and protecting human rights, particularly the right to the enjoyment of the highest attainable standard of health. We are supporting The World Justice Project, a multinational, multidisciplinary initiative to strengthen the rule of law worldwide and raise awareness of the connection between the rule of law and the essentials of people’s daily lives. We also support the process initiated by the United Nations to evaluate this issue and, specifically, the ongoing work of Professor John Ruggie, the Special Representative of the U.N. Secretary-General, on business and human rights, to seek clarity around human rights and the role of business. In addition, we are working with the Danish Institute for Human Rights and a number of other pharmaceutical companies to develop a sector-specific human rights risk assessment tool. We continue to work with academic experts and other key stakeholders to help in better defining the role of business – and specifically the pharmaceutical industry – in supporting the right to health.

properly and thoroughly investigated. We also will ensure that the appropriate disciplinary action is taken, up to and including dismissal, when necessary. We plan to report on the first results of this new program in our 2009 report.

- » We plan to develop a global training program based on Merck’s Guiding Principles for Business Practices Involving the Medical and Scientific Community.
- » We will voluntarily disclose in the fourth quarter of 2009 all payments to U.S.-based healthcare professionals who speak on behalf of Merck or our products, even in the absence of legislation requiring us to do so.
- » By the end of 2009, we plan to formalize a Global Labor Relations Strategy, which will include global labor guidelines and principles, and monitoring tools to ensure consistency worldwide. We will also establish labor relations advisory boards for every region globally to assist the Labor Relations Center of Excellence with a variety of labor relations activities, including adherence and monitoring of our corporate *Values and Standards* and global Labor Relations Guidelines and Principles.
- » Using the Danish Institute for Human Rights pharmaceutical sector risk assessment tool, we intend to perform a human rights risk assessment analysis at the headquarters level.

## BUSINESS AND HUMAN RIGHTS

Business has an important role to play in promoting and respecting the advancement of fundamental human rights, while not supplanting the primary obligations of governments to protect the human rights of all people within their borders and as members of the international community. Merck supports meaningful efforts and

## FUTURE GOALS AND PRIORITIES

- » In accordance with Merck’s recently established comprehensive, global guidelines for escalation, investigation, remediation and recognition of non-compliance events, we will ensure that events are escalated to the appropriate place within the Company, and



## Managing Our Environmental Footprint

As a global pharmaceutical company, Merck can play a leadership role in achieving a healthy society *and* planet.

In addressing the climate challenge, we encourage pharmaceutical companies such as Merck to reduce the lifecycle impact of their products and corporate supply chains as well as reducing their direct and indirect operational footprint. We encourage companies to help build markets for green power by procuring electricity from renewable sources, taking measures to reduce use of carbon-intensive transportation fuels, and offsetting residual emissions using high-quality carbon offsets. Further, companies must help humanity prepare for new disease patterns

resulting from a changing climate, which could also offer growth opportunities.

In addressing the water challenge, we encourage the industry to help pioneer new technologies and actions that will galvanize workable and effective solutions to both water scarcity and water-quality issues. Newly available tools can help companies analyze where the best opportunities are for saving water and reducing pollution.

Merck's size and capacity allows it to make a positive contribution to society through ambitious leadership while at the same time offering product solutions that improve the quality of life around the world.



**ELIZABETH COOK**

Vice President for Institutional Strategy and Development, World Resources Institute



...we encourage pharmaceutical companies to reduce the lifecycle impact of products and supply chains, as well as reduce their operational footprint.



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Merck published its first environmental report and publicly announced our first environmental improvement goals in 1990 and we have been reporting on our progress since 1993.

We assess the environmental footprint of our operations across a broad set of measures, including energy and water use, greenhouse gas (GHG) and pollutant emissions to air and water, and waste generation and recycling rates.

The data featured in this section focus on the direct footprint from our internal activities, which is primarily associated with our research and manufacturing operations. However, we are also working to understand the environmental footprint of our supply chain. For the past several years, we have included indirect footprint information on emissions of greenhouse gases associated with the generation of energy we purchase. During 2008, we began to evaluate our indirect environmental footprint related to employee travel.

Because pharmaceutical synthesis is complex and requires multiple solvent changes and rigorous cleaning, solvent emissions and spent solvent wastes have a large impact on our direct environmental footprint. Some of our newer products are being developed using biological processes that require significant amounts of very pure water. Our most significant use of water is non-contact cooling for manufacturing. Because of its importance to both manufacturing and human health, water is an emerging focus area for our efforts. Utilities, including the production

of steam, are the largest sources of our carbon dioxide (CO<sub>2</sub>) emissions. None of our products contain or use ozone-depleting substances. More on our environmental approach and management at: [www.merck.com/cr/environment](http://www.merck.com/cr/environment).

### IMPROVING ENVIRONMENTAL AND SAFETY COMPLIANCE

At Merck, protecting the health and well-being of our employees and the public, protecting and preserving the environment, ensuring the safety of our employees and those who live in



**KAREN KLIMAS**

Vice President,  
Global Safety and Environment,  
Merck & Co., Inc.

Global human health cannot be achieved without a healthy environment. Merck took an early step in the 1990s by setting goals and dramatically reducing our toxic emissions. Today it isn't just toxics, but our changing climate and access to water resources that represent risks to human health.

Merck recognizes that the manufacture and sale of our products and other aspects of our supply chain have environmental impacts within and outside of our fence line. We focus on conservation, reducing the consumption of energy, water, solvents, and packaging components in our operations and have taken proactive steps to reduce

greenhouse gas emissions. We are mobilizing our strength in science and innovation by using Green Chemistry to design safer and more efficient processes. We also seek to re-use and recycle, both in our purchased materials and wastes, and to select partners who share our values, such as renewable energy providers. Finally, we are currently looking at how and where we use water so that we can prioritize our efforts in locations where water resources are most vulnerable.

At Merck, we believe that protection of the environment and conservation of our natural resources are a part of delivering on our mission of improving global human health.



...protection of the environment and conservation of our natural resources are part of our mission of improving global human health.



the vicinity of our facilities and being in full compliance with the law are of fundamental importance to the way we operate. Our mission and values are articulated by Merck's corporate safety and environmental (S&E) policies. In addition to compliance with all applicable country, regional and local safety and environmental laws, we strive for S&E performance that is among the best in the pharmaceutical industry.

In 2008, Merck received 176 inspections by EHS regulatory agencies around the world. This represents a 33 percent increase in environmental inspections and an 83 percent increase in safety inspections in 2008 over 2007. While the data set is limited, it is possible that higher inspection frequencies may continue in future years.

Twenty-three spills were reported by Merck sites worldwide in 2008 versus 26 in 2007. Fifty percent of these spills are related to a modified regulatory

interpretation by the Pennsylvania Department of Environmental Protection (DEP) that resulted in reporting of a number of events that were not previously required to be reported, such as spills of chilled water. Overall, approximately 70 percent of the spills reported in 2008 were either spills of cooling water, or spills that were contained and cleaned up or directed to wastewater treatment.

Merck experienced seven water permit exceedances in 2008, one more than in 2007. Approximately 42 percent of the water events were related to pH, and metals and organic exceedances each accounted for 29 percent of the events. Merck also experienced 23 air permit exceedances, a decrease of five from 2007. Fifty-six percent of the air events were related to exceedances of an emission limit during stack testing or routine monitoring and 26 percent were related to temperature deviations.

Merck received seven safety notices of violation in 2008, an increase from the three that were reported in 2007 and similar to the eight reported for 2006. Over the past three years, approximately 40 percent of the safety notices of violation received were from governmental safety inspections and 40 percent were fire department inspections. There were no safety-related fines paid in 2008. More at: [www.merck.com/cr/employeesafety](http://www.merck.com/cr/employeesafety).

Merck received nine notices of violation (NOVs) for environmental matters in 2008, four less than in 2007. During the past three years, 63 percent of these NOVs have been associated with air emissions, 25 percent with water and 12 percent with waste. Merck paid \$1,579,600 in fines associated with environmental violations in 2008, which reflects a significant environmental settlement paid in early 2008 associated with three NOVs that resulted from three spills at one site in 2006. More at: [www.merck.com/cr/community](http://www.merck.com/cr/community).

## ENVIRONMENTAL AND SAFETY COMPLIANCE » PERFORMANCE DATA SUMMARY 2005–2008

GLOBAL	2008	2007	2006	2005
<b>Regulatory inspections</b>				
» Environmental inspections	101	76	88	N/D
» Safety inspections	75	41	65	N/D
<b>Environmental events</b>				
» Reportable spills and releases	23	26*	4	4
» Water permit exceedances	7	6	5	3
» Air permit exceedances	23	28	19	25
<b>Notices of Violations (NOVs)/Citations</b>				
» Environmental	9	13	11	N/D
» Safety	7	3	8	N/D
<b>Fines</b>				
» Environmental fines paid (US\$)	1,579,600†	31,515	10,652	281,025
(Number of fines)	(7)	(6)	(3)	(4)
» Safety fines paid (US\$)	0	1,500	1,975	1,000
(Number of fines)		(1)	(2)	(2)

N/D – No data available.

\* The increase in number of reportable spills is due primarily to a modified Pennsylvania Department of Environmental Protection interpretation in late 2006 that resulted in reporting of spills, such as chilled water spills into storm water drains, that were not previously required to be reported.

† Reflects a significant environmental settlement (\$1,575,000) paid in early 2008 associated with three spills that occurred in 2006.

For additional information on environmental and safety performance, go to [www.merck.com/cr/environment](http://www.merck.com/cr/environment).

### ADDRESSING CLIMATE CHANGE

Merck has adopted responsible policies and practices to reduce our energy demand and greenhouse gas (GHG) emissions. We believe that taking early action to understand how we use energy and to reduce our GHG emissions will also help to minimize the impact on Merck of anticipated regulatory requirements associated with climate change.

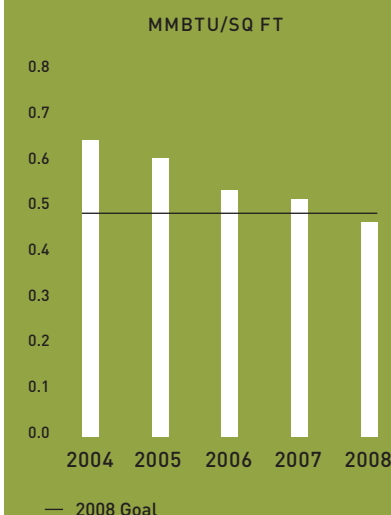
Merck recognizes that although voluntary programs to reduce GHG emissions can be effective, national and even multinational frameworks will be required to address climate change. Merck supports a global approach that

stimulates the development and broad use of energy-efficient technologies and avoids unnecessary economic disruptions and the inefficiencies of disparate local, state or regional requirements. We are working on establishing a long-term goal for reductions in GHG emissions in line with the global desire among nations and regions to commit to making significant reductions through 2020 and 2050. More at: [www.merck.com/cr/climatechange](http://www.merck.com/cr/climatechange).

### REDUCING ENERGY DEMAND

Since 1994, Merck has had a formal energy policy. By implementing best practices for reducing energy use across the Company, we have made significant progress in enhancing our energy efficiency. In early 2005, Merck adopted a corporate goal to reduce our demand-based energy intensity by 25 percent

### ENERGY DEMAND INTENSITY



## MERCK PARTNERSHIPS TO ADDRESS ENERGY AND CLIMATE NEEDS »

### » U.S. Environmental Protection Agency (EPA) ENERGY STAR:

This partnership provides a broad energy management strategy that serves as a useful framework in measuring our current energy performance, setting goals, tracking savings and rewarding improvements. Recently, the EPA recognized Merck with its 2009 ENERGY STAR Sustained Excellence Award. An ENERGY STAR partner since 2004, Merck has been recognized by the EPA for four consecutive years – twice as Partner of the Year and twice for Sustained Excellence. More at: [www.energystar.gov](http://www.energystar.gov).

### » U.S. EPA Climate Leaders: Member companies of this industry-government partnership program develop comprehensive climate change strategies and commit to reducing their impact on the global environment by completing a corporate-wide inventory of their

greenhouse gas emissions. Merck's goal is to achieve 12 percent absolute reduction in greenhouse gas (GHG) emissions from a baseline of 2004 through 2012. More at: [www.epa.gov.statepoly](http://www.epa.gov.statepoly).

### » Business Roundtable Climate RESOLVE (Responsible Environmental Steps, Opportunities to Lead by Voluntary Efforts): This initiative seeks to have every company in every sector of the U.S. economy undertake voluntary actions to control GHG emissions and improve GHG intensity. More at: [www.businessroundtable.org](http://www.businessroundtable.org).

### » Carbon Disclosure Project: Merck has reported its greenhouse gas emissions since 2005 to the Carbon Disclosure Project and participates in workshops and seminars sponsored by the CDP. More at: [www.cdproject.net](http://www.cdproject.net).

## ENERGY AND GREENHOUSE GAS » PERFORMANCE DATA SUMMARY 2004–2008

GLOBAL	2008	2007	2006	2005	2004*
Total energy supply (Million BTUs x 10 <sup>6</sup> )	12.8	15.2	15.5	17.5	18.5
Energy demand intensity <sup>†</sup> (Million BTU/sq ft)	0.47	0.52	0.54	0.61	0.65
Energy source (% of total) <sup>‡</sup>					
» Purchased electricity	36	29	29	28	28
» Natural gas	38	52	53	54	56
» Fuel oil	3	3	2	3	3
» Coal	0	0	0	0	0
» Fleet fuel	23	17	16	15	13
Total GHG emissions (as CO <sub>2</sub> eq) (Million metric tons)	1.18	1.38 <sup>§</sup>	1.38 <sup>§</sup>	1.47 <sup>§</sup>	1.51 <sup>§</sup>
Total GHG emissions (as CO <sub>2</sub> eq) baseline adjusted for sale of facilities. <sup>¶</sup> (Million metric tons)	1.18	1.29	1.29	1.36	1.36

\* 2004 noted as baseline.

† The difference between demand energy and supply energy is losses in energy production at Merck facilities.

‡ Previously reported data have been modified to reflect the energy distribution with fleet fuel included and to reflect a change in calculation methodology.

§ Previously reported data have been modified to reflect the contribution of additional GHG compounds.

¶ In accordance with U.S. EPA Climate Leaders protocol, GHG generation baseline data have been adjusted to remove facilities that have been sold.

per unit area (measured in millions of BTUs [MMBtu/ft<sup>2</sup>]) by the end of 2008, from a baseline year of 2004. We have achieved and exceeded the goal, reducing our energy demand by 28 percent. In 2008, our Energy Center of Excellence (COE) developed efficiency metrics for all major systems at Merck that demand energy and we are using these metrics to drive even better performance.

Specific energy efficiency projects included the installation of variable speed drives, re-commissioning of production, research and office buildings, and the use of free cooling and heat recovery from recirculating water systems.

### REDUCING GREENHOUSE GAS EMISSIONS

Since 2005, Merck has been reporting our GHG emissions annually through the Carbon Disclosure Project. In

February 2008, we announced our goal to reduce GHG emissions<sup>1</sup> from the Company's global facilities and automobiles by 12 percent by the end of 2012 from the baseline year of 2004. Merck's GHG targets, accepted by the EPA Climate Leaders program, are based on an absolute reduction of 1.5 percent per year for eight years.

Merck tracks four greenhouse gases: carbon dioxide (CO<sub>2</sub>), methane, nitrous oxide and hydrofluorocarbons. The vast majority of our GHG emissions are associated with CO<sub>2</sub>. Perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>) are not tracked because they are typically not used at Merck facilities.

Based on 2008 results, Merck's net reduction in GHG emissions was 180,400 metric tons or 13.2 percent from a 2004 baseline that has been adjusted for sites that have been sold.

However, approximately 50,000 metric tons of this reduction is from a facility that has been closed but not yet sold. If this facility were removed from the baseline, Merck's net GHG emission reduction would be 9.6 percent from the corrected 2004 baseline. We are committed to meeting our goal of a 12 percent reduction by 2012, even though new facilities currently under construction will add to Merck's total emissions.

### TRACKING OUR TRAVEL-RELATED CARBON FOOTPRINT

The GHG emissions associated with our vehicle fleet are part of our GHG goal and 2004 emission reduction baseline. In 2008, Merck also began to track direct GHG emissions associated with the Merck air fleet. These emissions, which totaled 4,150 metric tons, were not included in our original GHG emissions

## ADOPTING SOLAR POWER TO REDUCE GHG EMISSIONS »

In April 2009, Merck inaugurated a 1.6 megawatt ground-mounted photovoltaic energy array at our corporate headquarters in Whitehouse Station, New Jersey. Spread out over 7.5 acres, it is one of the largest ground-mounted solar power tracking systems built in a corporate setting. Nearly 7,000 moving solar panels are tracking the sun to generate 2.5 million kilowatt hours of energy per year.

As a Member of the U.S. EPA Climate Leaders, Merck is committed to reducing greenhouse gas emissions. A solar project of this size will avoid the emissions of more than 1,200 tons of carbon dioxide annually, which is about the same as taking 200 cars off the road per year.<sup>2</sup>



## WATER USE » PERFORMANCE DATA SUMMARY 2004–2008

GLOBAL	2008	2007	2006	2005	2004 (baseline)
<b>Total water usage</b> (Billion gallons)	5.6	8.8	9.6	10.1	11.7
(Percent reduction v. prior year)	(36)	(8.3)	(5)	(13.6)	
» <b>Purchased water</b> (Billion gallons)	1.3	1.6	1.6	1.8	1.9
» <b>Pumped water, surface and ground</b> (Billion gallons)	4.3	7.2	8.0	8.3	9.7

goals and are small in comparison to overall GHG emissions.

We have also begun to gather the emissions associated with business travel and have estimated data for the years 2006 through 2008 that will be used to develop information about environmentally smarter travel options for employees.

### WATER USE

In recent years, a combination of industrialization, urbanization and increasing population growth have put pressure on the availability and quality of fresh water supplies. This has led to increasing concern and efforts to ensure efficient and sustainable use of water resources. Because clean water is critical to both human health and the environment as well as to our business, we are taking steps to improve our overall water use efficiency and to understand our water footprint.

Merck's strategy for improving our water use efficiency includes reducing our overall demand for water, controlling our water discharges and understanding the water-related challenges in the regions where we operate.

Approximately 77 percent of the total water we use is supplied from surface and ground water. Much of the water use at Merck is for utility systems in our manufacturing plants, more specifically to produce active pharmaceutical ingredients that require large volumes of cooling water. In 2008, approximately 50 percent of the water we used globally was for once-through non-contact cooling, where water is pumped into the plant, circulated through heat exchange piping to cool processes and then discharged at a higher temperature. The vast majority of the once-through cooling water (98 percent) was used at facilities where there are ample supplies of ground water. To reduce water consumption, many Merck facilities employ water reuse and recovery strategies. During 2008, 1.8 billion gallons of water were recycled or reused by Merck facilities.

We achieved our goal of reducing water use by 15 percent between 2004 and 2008. In 2008, we used 6.1 billion gallons of water less than in 2004: a 52 percent reduction. The closure and sale of two water intensive facilities accounted for 59 percent of our total reduction. Water use reductions at the rest of our facilities, since including new sites that have been added, were 21.4 percent.

For details on Merck's initiatives worldwide to reduce water use, go to [www.merck.com/cr/water](http://www.merck.com/cr/water).

### EMISSIONS, EFFLUENTS AND WASTE

Our strategy for minimizing our environmental footprint focuses on reducing our demand for hazardous materials, preventing the generation of waste, and reusing or recycling materials.

Reducing emissions and wastes of all types begins with the original design of our pharmaceutical manufacturing processes and continues through installation. Our "green chemistry" program helps us design our new processes to use more benign chemicals and reduce our generation of waste and our consumption of energy, water and other resources. We have been building

awareness and green chemistry expertise among our process development chemists to help them develop more sustainable ways to synthesize our products.

Solvents play a key role in the synthesis of pharmaceutical compounds. In 2008, almost 40 million kilograms of solvent were used in Merck's production and cleaning processes. As a result of their importance to our pharmaceutical manufacturing process, we have active programs to reuse and recycle our used solvents, as well as to find other beneficial uses when reuse and recycling are not practical.

Reuse of solvents on-site in our processes lowers our process costs by reducing the amount of new solvent we need to purchase and also decreases the amount of waste solvents we need to transport off-site for treatment. In 2008, more than one-third of the solvents we used for manufacturing were recovered solvents.

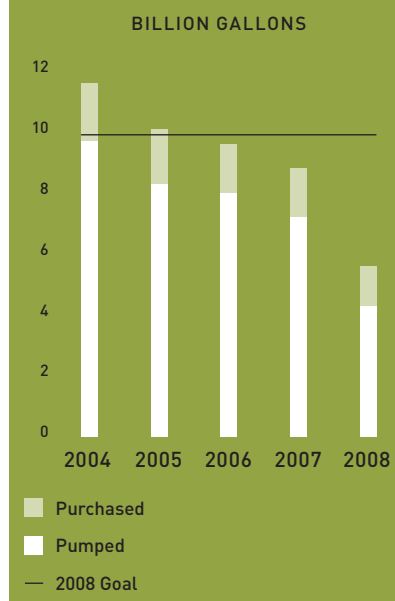
### WASTE

In 2008, Merck managed almost 74,000 metric tons of wastes from our operations. Of this, 46,800 metric tons were wastes that require special handling, including but not limited to hazardous, infectious and other special wastes hereafter referred to as hazardous. Merck's generation of these wastes decreased 23 percent from 2005 to 2008. Increases in solvent recovery and reductions in on-site production volumes are among the most significant contributing factors to this reduction.

The primary component of our hazardous wastes is solvent from our manufacturing operations. Of the hazardous waste we generate, 29 percent is recovered off-site and reused either by Merck or by other industries. Another 26 percent is burned as a source of energy in industrial furnaces or to generate power.

Most of the remaining waste is product or research waste that is not recyclable. Of the total hazardous waste generated, 39 percent is incinerated and less than three percent of our hazardous waste, none of which is liquid, is sent to landfills.

### WATER USE PERFORMANCE INDICATORS





## EMISSIONS, EFFLUENTS AND WASTE » PERFORMANCE DATA SUMMARY 2005–2008

GLOBAL	2008	2007	2006	2005
<b>Manufacturing solvent use (Metric tons)*</b>	39,000	N/D	N/D	N/D
» Fresh solvents*†	25,000	~30,000	N/D	N/D
» Recovered solvents	14,000	N/D	N/D	N/D
<b>Air pollutant emissions by type (Metric tons)</b>				
» Ozone-depleting substances (ODS)	1.2	1.4‡	N/D	N/D
» Nitrogen Oxides (NO <sub>x</sub> )	297	318§	322§	471§
» Sulfur Oxides (SO <sub>x</sub> )	50	58	67§	84
» Volatile Organic Compounds (VOCs)	353	401‡	427	411
<b>TRI emissions (Metric tons to air and water)</b>	196	270	242	163
» TRI emissions to air	72	97	123	104
» TRI emissions to water	124	173	119	59
<b>Waste generated (Metric tons)</b>				
» Hazardous waste generated	46,800	54,000	62,300	60,900
» % Hazardous waste recycled	29	23	29	37
» % Other beneficial reuse	26	32	32	18
» Non-hazardous waste generated	27,000	32,000§,¶	N/D	N/D
» % Non-hazardous waste recycled	46	42§,¶	N/D	N/D

\* Data includes purchases of solvents in bulk (tank truck/railcar) and large packages (drums, Fisher Paks).

† Data should be considered an estimate.

‡ Data unavailable for a site sold at the end of 2007.

§ Prior year data have been modified to reflect corrections identified after publication of previous report.

¶ 2007 was the first year we collected non-hazardous waste generation and recycling data. Data should be considered an estimate.

Merck has had a global waste management services vendor approval program since the late 1980s to ensure that the wastes we send offsite are managed in an environmentally responsible manner.

In 2007, we began to track our generation of non-hazardous waste. Based on the first two years of data, on average we recycle approximately 44 percent of the 27,000 to 32,000 metric tons of non-hazardous wastes we generated annually.

### AIR EMISSIONS

The largest source of air emissions at our sites is CO<sub>2</sub> from the production and use of energy, and from other combustion processes such as thermal oxidizers for

treatment of air emissions and solid waste incinerators. These combustion processes also result in emissions of nitrogen oxides (NO<sub>x</sub>) and sometimes sulfur oxides (SO<sub>x</sub>), depending on the fuels used. Emissions of NO<sub>x</sub> and SO<sub>x</sub> from Merck facilities continued to trend downward, with a seven percent reduction in NO<sub>x</sub> from 2006 through 2008 and a 24 percent decrease in SO<sub>x</sub> during the same period. Energy conservation measures, production variability and the closure or sale of sites all contributed to the decreases. The use of cleaner fuels further contributed to declines in SO<sub>x</sub> during that period.

The largest source of air emissions from our manufacturing processes is solvent use, which is the primary component of both emissions to air of volatile organic compounds (VOC) and Toxic Release Inventory (TRI) compounds. Emissions involving both of these parameters continued to decrease between 2006 and 2008. Although our solvent emissions vary year to year due to the nature of our business and variability in the amount of solvents required for different products, a large portion of the decreases in air emissions were due to the closure of two Merck sites. It is noteworthy that since 1996, Merck has maintained its 90 percent reduction in TRI emissions from 1987 levels, despite Company growth.

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## GREEN BUSINESS INITIATIVES »

- » **Facility design:** In 2008, Merck adopted a corporate commitment to build all new laboratories and offices to achieve a LEED® Silver Certification or its equivalent globally.
- » **Packaging components:** We are consolidating the number of unique product package images worldwide which will reduce packaging discards and packaging line waste.
- » **Office Supplies:** Merck's Corporate headquarters is using 46 percent less copy paper per employee now than in 2001. The reduction is the result of employee awareness campaigns and implementation of a global program that moved employees from personal printers to network duplexing printers.
- » **Surplus Exchange:** On Earth Day 2004, Merck launched a user-driven on-line program to provide employees with an

efficient way to post low- and medium-value supplies and equipment to seek other departments that can make use of them. Five years after its launch, thousands of transactions have been documented – saving money, avoiding waste, reducing upstream manufacturing impacts and reinforcing an employee ownership culture.

- » **Verizon Hopeline Partnership:** Our U.S. facilities and field sales staff actively participate in this program that benefits victims of domestic abuse. In the last three years, more than 31,000 cell phones, from both business and personal use, have been donated for reuse or recycling. Recycling cell phones allows the recovery of important precious metals and keeps waste out of landfills.

In 2007, we began tracking emissions of ozone-depleting compounds. Our current emissions, which are primarily due to minor leaks from temperature control systems, are small compared to other emissions from our sites. Nevertheless, we will continue to monitor them for improvement opportunities.

#### WASTEWATER EFFLUENTS

All of Merck's process wastewater is treated prior to discharge. Merck operates our own biological wastewater treatment plants at four of our production facilities; the remainder of our production facilities wastewater is treated by local municipal facilities.

TRI emissions to water reflect a reduction in 2008 versus 2007, due primarily to the sale and/or closure of two major manufacturing facilities, as well as lower manufacturing volumes at certain facilities. In addition, we are currently installing technology that will reduce the discharges of nitrates at one facility that accounted for the majority of the increases in 2006 and 2007.

During 2008, we began to track characteristics of the wastewater discharged by our facilities, including chemical oxygen demand, suspended solids, ammonia, and phosphorous.

As part of the drug discovery and development process, Merck assesses the potential environmental and human health effects of our products. Since the early 1990s Merck has used that information to establish compound-specific criteria and procedures to assure that our factory discharges do not contain residual products that present a risk to human health or the environment. For more on our efforts on pharmaceuticals in the environment, go to p. 45.

#### ENVIRONMENTAL REMEDIATION

Management practices for emissions, effluents and wastes have evolved significantly in the past 30 years. With research and manufacturing operations dating back more than 100 years, some facilities were operated during times when regulations and the understanding of good environmental practices were not at the level that they are today. As a result, Merck has responsibility for remediation of these historical environmental concerns and has established

projects to ensure aggressive and appropriate cleanup actions where Merck bears responsibility.

Expenditures for remediation and environmental liabilities, including formerly owned and operated sites, were \$19.5 million in 2007 and \$34.5 million in 2008. The increase in 2008 was primarily due to execution of a guaranteed remediation program (GRiP®) with an environmental consultant to complete the ongoing remediation project at one of our former manufacturing sites. In addition, Merck currently is a potentially responsible party at 18 multi-party Superfund sites in the United States. In 2008, two Superfund claims were successfully resolved as *de minimis* settlements. These amounts do not consider potential recoveries from other parties.

#### PRODUCT STEWARDSHIP

Merck is committed to understanding and managing the environmental impacts of our products from discovery through manufacturing, patient use and disposal. This commitment starts early in the drug development process and continues throughout the product lifecycle.

Merck scientists use green chemistry principles to reduce the environmental footprint of our manufacturing processes. We also conduct environmental risk assessments on our products to evaluate and mitigate any potential for environmental impacts due to discharges from our pilot plant and manufacturing facilities as well as to evaluate potential impacts resulting from normal patient use. In addition, we strive to reduce the amount of packaging material and waste associated with our products and to ensure that our suppliers also have responsible practices. More at: [www.merck.com/cr/stewardship](http://www.merck.com/cr/stewardship).

#### USING GREEN CHEMISTRY

Merck applies green chemistry in both our research activities and our manufacturing operations. In research, Merck scientists designed micro-column chromatography to avoid the creation of thousands of gallons of solvent waste and published their work in the scientific literature where it is available to researchers in other companies. In manufacturing, Merck scientists and process engineers have introduced chemistry innovations that significantly reduce

the use of raw materials, the generation of both hazardous and non-hazardous waste, and reduce the use of energy and water in pharmaceutical production. In addition, Merck has begun tracking new measurements of process efficiency that will be used in process selection and drive continuous improvement.

Merck is a founding member of the ACS GCI Pharmaceutical Roundtable, a collaborative partnership between the American Chemical Society's Green Chemistry Institute® and member pharmaceutical companies, and has received several awards in the United States and the European Union for its green chemistry efforts.

#### ENVIRONMENTAL RISK ASSESSMENTS

In many countries around the world, an Environmental Risk Assessment must be conducted and submitted to regulatory authorities as part of either the official marketing approval or the new substance notification processes. To carry out these assessments, Merck puts our medicines through a battery of environmental fate and effects tests that are appropriate for evaluating potential environmental impacts from pharmaceutical residues in the environment. All tests are performed in independent research laboratories officially accredited to perform regulatory testing, and are carried out following protocols issued by the OECD and in full compliance with Good Laboratory Practice regulations. Environmental risk assessments carried out to date indicate that our products do not pose an unacceptable risk to human health or the environment.

Merck scientists also are collaborating with other pharmaceutical companies, governmental agencies and universities to foster greater awareness and use of the scientific methods used to assess the potential impacts of pharmaceuticals in the environment and to increase the understanding of such impacts. In Sweden, Merck participated in establishing an environmental classification system for pharmaceuticals, and voluntarily provides environmental risk data on our products (see [www.fass.se](http://www.fass.se)). In Canada, Merck scientists are working with governmental agency and university scientists to develop environmental assessment regulations aimed

at addressing risks to the environment and to human health posed by products regulated under the Canadian Food and Drug Act.

#### PHARMACEUTICALS IN THE ENVIRONMENT (PIE)

Merck participates in many stakeholder collaborations aimed at developing and implementing a science-based approach to evaluating and setting policy related to pharmaceuticals in the environment. In addition, through our association with the Graham Environmental Sustainability Institute, Merck is collaborating with researchers at the University of Michigan and PhRMA to assess the environmental footprints associated with methods of disposal of unused medicines. Merck is also a sponsor of the Water Environment Research Foundation (WERF), where the significance of trace constituents of consumer products, including pharmaceuticals in the environment, has been identified as a critical knowledge area and is the subject of numerous research projects, including research on new wastewater treatment technologies to improve the removal of trace amounts of pharmaceuticals from wastewater discharges.

Although the primary source of pharmaceuticals in the environment is patient use and excretion, given that flushing of unused medicines contributes to the trace concentrations detected in the environment, proper disposal is also an important aspect of addressing the issue. Merck, through its membership in the PhRMA PIE Task Force, has worked to develop and implement the SMARxT Disposal Program, designed to provide the general public with information on proper disposal of medicines.

To view Merck's policy on PIE, go to [www.merck.com/cr/docs/PIE\\_PUBLIC\\_statement.pdf](http://www.merck.com/cr/docs/PIE_PUBLIC_statement.pdf).

#### NANOTECHNOLOGY

Merck is actively pursuing nanotechnology both through internal research and external collaborations, because we are always looking for better ways to improve patient care as well as protect the environment and the health and safety of our employees. The testing required for all drugs will ensure that nano-based pharmaceuticals are safe and effective for patient use. Based on our current knowledge of nanoparticles, our existing methods for assessing risks to workers and the environment are valid and our existing controls are well-suited for controlling employee exposures to nanomaterials.

One of Merck's products, EMEND, uses a nanoscale milling approach to make the granules very small so they are more easily absorbed in the digestive tract. Merck also packages a new class of experimental drugs (siRNAs) by coating them with lipids (fats) for efficient delivery to the inside of cells where they are active.

For more on Merck's product stewardship initiatives, go to [www.merck.com/cr/productstewardship](http://www.merck.com/cr/productstewardship).

#### FUTURE GOALS AND PRIORITIES

- » We continue to strive for full compliance with applicable laws and regulations.
- » Our major goal is to have zero significant safety or environmental events.
- » We continue to enhance our audit, self-assessment and inspection programs.
- » We continue to enhance safety & environmental (S&E) training for S&E professionals, operations managers and employees.

- » We continue to look for ways to reduce our energy demand, including through the increased use of renewable energy technologies.
- » We aim to reduce our total global GHG emissions by 12 percent by the end of 2012, using 2004 as the baseline year.
- » We are working on establishing appropriate GHG reduction goals for the longer term that are in line with the global desire among nations and regions to commit to significant reductions through 2020 and 2050.
- » Merck will continue to seek new sources of GHG data in certain elements of our supply chain, including the amount of renewable energy we purchase, and will investigate our ability to track emissions related to materials shipments.
- » Although we have achieved our water use reduction goal, Merck continues to place high priority on optimizing our use of water. During 2009, we will continue to map our water use and create profiles of water availability and risks at our facilities around the world, and use that information to identify opportunities for water use improvements that optimize environmental benefit and business value.
- » We will continue to monitor TRI and VOC emissions to ensure that we maintain reductions obtained from past initiatives.
- » Merck will continue to work with stakeholders and the scientific community on the evolving issue of pharmaceuticals in the environment (PIE) to identify additional data needs on the transport, fate and effects of PIE and to conduct our own environmental risk assessments based upon the best available science.

1 [www.merck.com/newsroom/press\\_releases/corporate\\_responsibility/2008\\_0220.html](http://www.merck.com/newsroom/press_releases/corporate_responsibility/2008_0220.html)

2 [www.merck.com/newsroom/press\\_releases/corporate/2009\\_0415a.html](http://www.merck.com/newsroom/press_releases/corporate/2009_0415a.html)

# Advocacy and Outreach

As corporate political disclosure gains broad acceptance, the challenge for companies is to bring accountability to political spending by their trade associations. Underwritten by their corporate members, associations are major political players. A large share of corporate political spending is in fact done through associations. However, the absence of disclosure of payments to or spending by associations on political activity means that much of this activity remains hidden, even to their members. This secrecy is being peeled back as a growing number of companies, including Merck, disclose their payments used for political purposes.

To make this disclosure more useful, companies need to take a further step and ask associations about the purpose, the recipients and the beneficiaries of their political expenditures. Companies should include this information as a normal part of their political disclosure. This would help companies in evaluating the risks and benefits of their trade association participation. It would further enable companies to identify any conflicts between their values and public policy objectives and those of organizations that they support. Robust disclosure and accountability are critical for determining whether a company's resources are being used to achieve political goals which the company may not share and may even oppose.



**BRUCE F. FREED**

President, Center for  
Political Accountability



...one challenge for companies is to bring greater accountability to their public policy advocacy efforts and political spending...



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A major element of our Corporate Responsibility approach and practices is our public policy advocacy work and our outreach to stakeholders.

Merck informs and advocates for public policies that foster research into innovative medicines and improve access to medicines, vaccines and health care. While our positions support the sustainability of our business, we believe they also are beneficial to society as a whole.

## **MAKING A RESPONSIBLE CONTRIBUTION TO PUBLIC POLICY DEBATES**

During 2008 and more recently, Merck has been contributing to numerous policy debates worldwide. Below are a few noteworthy examples. Merck positions on many of these issues can be found at: [www.merck.com/about/public\\_policy](http://www.merck.com/about/public_policy).

### **HEALTHCARE REFORM**

We have consistently promoted health-care reform in the U.S. and abroad, including initiatives to address pricing and reimbursement conditions for

innovative products in the European Union, Asia Pacific and Latin America. In Europe, we have contributed positively to an active public dialogue on how governments can improve public health while efficiently managing limited healthcare resources. See p. 26 for more details.

### **PROMOTING INNOVATION**

Merck supports policy initiatives that foster an environment conducive to the development of a robust life-sciences sector. Merck Frosst is partnering with the Centre for the Advancement of

Health Innovation in Canada to support the local life sciences sector.

### **BIOSIMILARS**

Merck supports an abbreviated regulatory pathway for approval of biosimilars, to assure patient safety and preserve incentives for continued biologics innovation. The cost savings that could be realized by competing biosimilar products may provide additional resources to fund research, development, and payment of new innovative products. We have supported the adoption of regulatory guidelines for biosimilar products in numerous markets including the U.S.,



**GERALYN S. RITTER**

Vice President, Global Public Policy  
and Corporate Responsibility,  
Merck & Co., Inc.

Merck recognizes it is our responsibility to work with policymakers and other stakeholders to explain our views ethically and transparently. Our public policy and engagement practices are governed by numerous regulations worldwide as well as Merck's own Code of Conduct. We adhere to the Center for Political Accountability's Model Code on political contributions and are proud to say that we are in compliance with all major provisions of the Code's eleven principles.

We also understand that accountability with respect to the actions of our trade associations is critical. We take a very active part in the strategy

discussions of major trade associations of which we are members to ensure that any conflicts with our policy positions or values are identified and addressed. In 2008, we began to disclose the portion of dues that major U.S.-based trade associations report to us as being used for advocacy and/or political activity purposes, where dues are greater than \$50,000. Because we recognize the concerns of stakeholders regarding potential trade association activity, we will continue to look for efficient ways in which greater transparency can be achieved with respect to the policy positions and activities of the trade associations we support.



Because we recognize stakeholder concerns regarding potential trade association activity, we will continue to look for efficient ways to achieve transparency.



Japan, Australia, Korea, Taiwan, Malaysia and Mexico.

#### REGULATORY REFORM

Merck supported systemic changes to improve the quality and timing of regulatory review in Japan. In this way, we aspire to increase access to needed, new medicines.

#### INTELLECTUAL PROPERTY PROTECTION

Merck continues to defend strong intellectual property protections

worldwide. In 2008, our educational efforts have focused on preventing issuance of compulsory licenses and strengthening data protection.

#### ANTI-COUNTERFEITING

We are working with numerous organizations to raise awareness about the serious public health risks posed by counterfeit medicines, and to promote regulatory changes that will enhance public safety. Merck supports efforts to strengthen anti-counterfeiting laws, including the Safeguarding America's

Pharmaceuticals Act in the U.S. and the draft E.U. directive on counterfeiting (see p. 31).

#### TRADE AGREEMENTS

We have advanced increasing access to innovative medicines in many countries by supporting bilateral and multi-lateral trade agreements that promote more open and transparent markets. For example, Merck supported U.S. free trade agreements with a significant number of countries and regions, such as Chile and Central America.

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#### SUPPORTING HEALTHCARE REFORM IN THE U.S. »

Merck supports healthcare system reform in the U.S. that will ensure affordable access to healthcare coverage for all Americans. Without coverage, millions of Americans are denied access to needed health care, including prescription medicines and other basic services. We believe reforms should rely on market-based competition to improve quality, control costs, and continue to encourage the innovation that has made the U.S. system so unique. Merck also supports proposals to reduce health spending by increasing competition around health outcomes for patients, and by changing the tax code to remove the

incentives for unlimited healthcare spending. Furthermore, we believe all individuals should be required to purchase health insurance, every employer should provide insurance or pay into a fund, and the government should provide subsidies or insurance for those who cannot afford it. Merck supports promoting greater efficiency and enhanced quality of care in the healthcare system through increased research and public dissemination of cost and quality information, including increased price transparency at the point of service, as well as enhanced use of health information technology – such as electronic personal health records.

OUR VALUES  
IN ACTION



**MERCK CHAIRMANSHIP OF PHRMA FOCUSES ON TRANSPARENCY »**

In April 2009, Merck Chairman Richard T. Clark completed a one-year term as Chairman of the Board of Directors of PhRMA. During this period, PhRMA adopted several important policies to increase transparency and strengthen the industry's marketing and research standards, including:

- » Revising the PhRMA Code of Interactions with Health Care Professionals to ensure that industry marketing practices comply with the highest ethical standards. More on p. 35.

- » Strengthening the PhRMA Guiding Principles on Direct to Consumer Advertising about Prescription Medicines. More at: [www.phrma.org/files/DTCGuidingprinciples.pdf](http://www.phrma.org/files/DTCGuidingprinciples.pdf).
- » Updating PhRMA's Principles on Conduct of Clinical Trials and Communications of Clinical Trial Results. More at: [www.phrma.org/clinical\\_trials](http://www.phrma.org/clinical_trials).

**TRANSPARENCY**

Merck supports the creation of a uniform, U.S. national program for disclosing certain financial relations between industry and physicians. In 2008, we supported legislation that would have mandated such a system. In this spirit, we have begun to disclose payments to third parties.

**ENSURING OUR POLICY AND ENGAGEMENT CONDUCT IS BEYOND REPROACH**

Our public policy and engagement practices are governed by numerous regulations worldwide and by Merck's Code of Conduct (see p. 32). We also adhere to the Center for Political Accountability's (CPA) Model Code on political contributions ([www.politicalaccountability.net](http://www.politicalaccountability.net)). We have engaged with the CPA since 2007 to inform discussions on best practices related to spending for political activities. In 2008 we believe we were compliant in all material respects with all major provisions of the guidelines. There were no reports of possible violations of state law related to corporate political contributions.

Additionally, we have long-standing policies governing the use of any

corporate funds for political purposes. The Merck Board of Directors recognizes that the use of Company resources in the political process is an important issue for shareholders. We closely monitor our contributions to political candidates and seek approval by the Company's General Counsel in the U.S., and report our spending regularly to the Board.

We perform periodic audits to assess and enforce compliance with Company policies, and Merck employees above a certain level of responsibility are required to certify annually their adherence to such policies. We are extending certification in 2009 to require individuals involved in corporate political contributions in the U.S. to certify as to their knowledge of and adherence to the CPA Model Code, in addition to the other required Company certifications.

**MERCK TRANSPARENCY INITIATIVES: DISCLOSURE OF GRANTS AND PAYMENTS**

Merck believes that the best way to address the concerns, risks and questions facing our business and to build a foundation of trust is to be more transparent about the way we operate. By doing this, we are confident that we will continue to succeed in our most fundamental

responsibility – discovering and developing medicines and vaccines that make a difference in people's lives and create a healthier future.

That is why we have begun to disclose payment and grant information in a number of areas across our business in the following areas:

**» GRANTS TO MEDICAL, SCIENTIFIC AND PATIENT ORGANIZATIONS:**

Starting in October 2008, Merck began reporting grants over \$500 provided by the Company's Global Human Health division to U.S. organizations in support of independent accredited educational programs for health-care professionals. In 2009, we have expanded this disclosure to include other types of grants, including grants to patient organizations and other groups by Merck operations in Europe, Middle East, Africa and Canada. More on p. 36.

- » **PHILANTHROPIC GRANTS:** Starting in March 2009, Merck began reporting all philanthropic grants made through the Office of Corporate Philanthropy and The Merck Company Foundation. Merck will update this list annually providing a full 2009 report in the first quarter of 2010.

**ADVOCACY » PERFORMANCE DATA SUMMARY 2005–2008**

	2008	2007	2006	2005
<b>Corporate political contributions (U.S., CAN, AUS) (US\$)*</b>	U.S.: 597,775	470,625	611,975	337,140
	AUS: 5,040	19,195	20,292	12,137
	CAN: 30,965	58,396	45,765	46,700
<b>Portion of dues that the major U.S.-based trade associations report to us as being used for advocacy and/or political activities in the U.S. where dues are &gt;\$50,000† (US\$M)</b>	6.8 paid to 8 groups	6.9 paid to 8 groups	N/A	N/A
<b>Compliance with political contribution evaluation criteria used by the Center for Political Accountability</b>	All 11 principles	10 out of 11 principles	N/A	N/A

\* Totals reflect corporate contributions; employee contributions through the Merck PAC are not included. Political contributions in the United States, which are for state candidates, are always much greater in even-numbered calendar years, because that is when the overwhelming number of states hold their elections for state legislatures and governors.

† Because the U.S. tax law that requires this reporting does not apply outside the United States, trade associations that are not subject to this do not provide break-outs of lobbying expenditures from membership dues. Thus, at this time, Merck is unable to report these data for such lobbying expenses in other countries.

» **PAYMENTS TO U.S.-BASED HEALTHCARE PROFESSIONALS:** We support broader disclosure of financial relationships between physicians and the pharmaceutical industry. In 2008, Merck endorsed the Physicians Payment Sunshine Act, mandating disclosure of these financial relationships. But even in the absence of a legislative requirement, we plan to voluntarily disclose in the fourth quarter of 2009 all payments to U.S.-based healthcare professionals who speak on behalf of Merck or our products.

» **CORPORATE POLITICAL CONTRIBUTIONS:** To improve access to information about Merck's corporate political contributions in the United States, Merck annually posts the Company's contributions categorized by state, candidate and amount. Merck also discloses any contributions to committees known as 527 organizations. Beginning in 2009, we have expanded this list to include corporate contributions in Australia and Canada, the only other two countries where Merck provides corporate contributions to candidates or political parties.

» **MERCK POLITICAL ACTION COMMITTEE CONTRIBUTIONS:** Merck provides an opportunity for eligible employees to participate in the political process by joining a nonpartisan political action committee (PAC) that allows them to pool their financial resources to support federal and state candidates. Except for administrative expenses, the Merck Employees Political Action Committee (Merck PAC) is comprised completely of funds voluntarily contributed by eligible Merck employees. Merck publicly discloses all PAC contributions in reports filed with the Federal Election Commission. More at: [www.merck.com/about/publicpolicy](http://www.merck.com/about/publicpolicy).

» **DUES TO MAJOR U.S.-BASED TRADE ASSOCIATIONS:** In 2008, Merck began to disclose the portion of dues that major U.S.-based trade associations report to us as being used for advocacy and/or political activities where dues are >\$50,000.

More information on Merck's disclosures of grants and payments at: [www.merck.com/cr/grantsdisclosure](http://www.merck.com/cr/grantsdisclosure).

All Merck employees are required to adhere to the Company's high standards and act with integrity when interacting with government agents or engaging in any conduct related to governmental healthcare programs. This includes ensuring that all information provided to governmental entities is complete and accurate to the best of the employee's knowledge and belief. Our Code of Conduct also makes clear that no illegal payments of any kind are to be offered or made, under any circumstances, to government or political party officials or candidates of any nation.

In addition to our own advocacy efforts, we are members of numerous industry and trade groups. We work with them because they represent the pharmaceutical industry and business community and because they are important in reaching consensus on policy issues. At times we may not share the views of our peers or associations, in which case our Company representatives will ensure we voice our questions or concerns, or even recuse themselves from specific activities. For a list of the major associations we work with, go to: [www.merck.com/about/public\\_policy/trade\\_association\\_membership/home.html](http://www.merck.com/about/public_policy/trade_association_membership/home.html).

## ENGAGING WITH OUR STAKEHOLDERS

Merck's interactions with various stakeholders are fundamental to our understanding of – and response to – society's expectations of our Company across many dimensions of our global activities. Throughout our operations, the process of dialogue and engagement informs and guides our business strategy and decision making processes, and enhances the public's understanding of our business.

By actively engaging with our stakeholders, taking responsible actions and maintaining our commitments, we believe we can build trust and support. Over time this can reduce financial and other enterprise risks and costs. We engage stakeholders through financial and technical support, and through dialogue to inform debates constructively and to foster progress toward solutions that benefit society more broadly. We also have a long history of collaboration with patient groups and health-related charities in areas that are relevant to our business. As part of our efforts to increase transparency in our support of independent third parties, Merck has begun to disclose our support of third-party organizations and individual healthcare providers.

For details on how we work with specific stakeholder groups to address their expectations and concerns, go to [www.merck.com/cr/stakeholders](http://www.merck.com/cr/stakeholders).

## WORKING IN PUBLIC/PRIVATE PARTNERSHIPS TO ADDRESS SOCIETAL CHALLENGES

Merck recognizes that leveraging the expertise of all stakeholders can make a sustainable difference in addressing key societal challenges. We have decades of experience in developing public/private partnerships (PPPs) and have pioneered far-reaching programs focused on improving global health, on health and science education, environmental protection and ethical business practices. Our activities range from small collaborations to global multi-stakeholder initiatives; among these are the Merck MECTIZAN Donation Program, the African Comprehensive HIV/AIDS Partnerships, and the ROTATEQ Access Partnership. These and many other of Merck's numerous and varied public/private partnership efforts are discussed in detail throughout this report and on our website.

In 2009, we are requiring an annual progress and evaluation report for all public/private partnerships to which we provide financial support.

## FUTURE GOALS AND PRIORITIES

» In 2010, Merck plans to draft a new model code of conduct for corporate political spending that includes both the provisions of the CPA Model Code and additional provisions based on internal policies and practices.

» In 2010, we plan to disclose all of our memberships in U.S. state business-related associations, regardless of the size of the dues.

» In 2010, Merck plans to publish on our website a list of policy positions being advocated within state legislatures in the U.S.

» In 2010, we plan to report on the number of PPPs for which Merck has provided support and that report annually against program objectives and performance requirements, including a measure of their progress against the United Nations Millennium Development Goals where applicable.

# Executing the Basics

Merck's Corporate Responsibility reporting is focused on priority environmental, social and governance issues in accordance with our materiality assessment.

However, in addition to these issues, there exist a number of other topics which are of importance to our business and to our key stakeholders.

## CORPORATE GOVERNANCE

Issues of concern to our stakeholders are very often issues of concern to our shareholders. For this reason Merck corporate governance concerns both the Company's relationship to our shareholders, and also how we respond on key social issues. Our corporate governance objective is to balance fiduciary duty and accountability to generate long-term shareholder value, while also considering in a transparent manner the feedback from other stakeholders. For details on various aspects of our corporate governance, go to [www.merck.com/cr/corporategovernance](http://www.merck.com/cr/corporategovernance).

## KEY CORPORATE GOVERNANCE ISSUES

### ENGAGEMENT AND SUPPORT OF OPEN DIALOGUE WITH OUR SHAREHOLDERS

Merck supports productive dialogue and engagement with our shareholders, and has a long-recognized track record of constructive interaction through ongoing discussions and periodic meetings on key issues.

## BOARD INDEPENDENCE AND PERFORMANCE

A desire for complete independence of the Merck Board has been expressed by some shareholders. Our policy is that the Merck Board should consist of a substantial majority of independent directors in accordance with the standard for independence set forth in our Policies of the Board. Currently, all directors other than the CEO are considered to be independent. In 2007, Dr. Samuel Thier was appointed Lead Director to provide independent leadership to the Board. For additional details on the responsibilities of the Company's Lead Director, see p. 14 of Merck's 2009 Proxy Statement.

### SHAREHOLDER ADVISORY VOTES ON EXECUTIVE AND BOARD COMPENSATION

As a way of voicing their views on performance, some shareholders have asked for the ability to provide a non-binding vote on executive compensation. Merck believes this is unnecessary and not in the best interests of the Company and its shareholders, in view of the numerous

complex and inter-related considerations that are used to set compensation levels; the confidential nature of some information about the Company's strategies and performance that is used to assess executive performance and set compensation; and the availability of other means for shareholders to express their opinions on the Company's executive compensation strategy. For further details, see pp. 73–74 of the Company's 2009 Proxy Statement.

## CR GOVERNANCE AND PERFORMANCE MANAGEMENT

In 2009, Merck's governance of Corporate Responsibility (CR) has continued to develop, with the goal of improving integration of CR-related processes and increasing accountability for performance across the Company. In 2007–2008, we established a formal CR governance function and process – a new Office of Corporate Responsibility and a senior-level, cross-functional CR Council responsible for the Company's CR approach. We defined our priority ESG issues and developed metrics to

## CORPORATE GOVERNANCE » PERFORMANCE DATA SUMMARY 2005–2008

PERFORMANCE INDICATORS	2008	2007	2006	2005
Number of independent directors on the Merck Board [%]	13 (93)	12 (92)	11 (92)	11 (92)
Separate Chairman of the Board and CEO*	No	No	N/A	N/A
Lead Independent Director	Yes	Yes	No	No
Independent Audit Committee	Yes	Yes	Yes	Yes
Independent Compensation Committee	Yes	Yes	Yes	Yes
Independent Committee on Public Policy and Social Responsibility	Yes	Yes	Yes	Yes
Number of Board meetings held or scheduled†	13	13	8	11

\* There was no Chairman of the Board in 2005–2007.

† Meetings were held in person and via telephone.

measure the Company's performance and progress in numerous areas (see p. 3). Under this new process, Merck's Executive Committee reviews Merck's CR approach and related performance and approves our CR report. Merck's Board of Directors Committee on Public Policy and Social Responsibility is responsible for advising the Board of Directors and management on Company policies and practices pertaining to our CR responsibilities; other Board committees oversee specific issues such as corporate governance, audit and compliance, and executive compensation. More on our CR governance at: [www.merck.com/cr/crgovernance](http://www.merck.com/cr/crgovernance).

## BUILDING A POSITIVE WORK ENVIRONMENT

A positive work environment is essential to allow our employees to achieve their potential. It also helps attract new employees to Merck and motivates

them to stay. Components of our work environment include numerous opportunities for employee development and professional growth, competitive compensation and benefits, our focus on health and safety, and our approach to diversity and inclusion.

## COMPENSATION AND BENEFITS

Overall compensation at Merck is directly dependent on our corporate performance, as well as on specific internal metrics related to the performance of an individual employee and their functional group. Employees at all levels have objectives against which they are assessed by their supervisor.

In 2008, Merck paid a total of US\$5.03 billion in payroll expenses, excluding benefits. Merck's global compensation and reward program also includes an incentive plan of cash awards based on performance.

In many countries, we offer health insurance, life and injury insurance, disability insurance, retirement income benefits and insurance for business travel. At certain Merck sites, employees can see a healthcare professional on-site for such services as immunizations and health screenings. Worldwide, Merck offers retirement benefits that are competitive with our peers and general industry.

## DIVERSITY AND INCLUSION

We believe that our human and organizational differences, when managed successfully, will make us a more innovative, agile and profitable company. In 2007, Merck initiated a new global diversity strategy, under which the performance and compensation of our managers and leaders now is linked to measures related to fostering diversity and inclusion. As part of this strategy, in 2008, through an innovative approach to diversity, Merck

## POSITIVE WORK ENVIRONMENT » PERFORMANCE DATA SUMMARY 2005–2008\*

	2008	2007	2006	2005
Total compensation paid to employees/payroll excluding benefits (US\$B)	5.03	5.56	5.14	4.84
Women in workforce (globally) (%)	50	48	49	49
Women on the Board (%)	21	23	25	25
Women in executive roles (U.S.)† (%)	28	27	26	28
Women on Senior Management Team (U.S.) (%)	34	31	29	29
Women in workforce (U.S.) (%)	50	49	50	50
Women in management roles (U.S.) (%)	42	41	41	38
Under-represented ethnic groups on the Board (%)	14	17	17	17
Under-represented ethnic groups in executive roles (U.S.)† (%)	11	11	12	12
Under-represented ethnic groups on Senior Management Team (U.S.) (%)	15	14	15	14
Under-represented ethnic groups in workforce (U.S.) (%)	23	20	20	21
Under-represented ethnic groups in management roles (U.S.) (%)	20	20	19	18
Employee response rate to Merck Culture Assessment Survey (%)	65	72	77	N/A‡
Number of position eliminations through Merck's restructuring program	5,800	2,400	3,700	1,110
Overall turnover rate§	17.6	10.7	11.9	10.6
Overall voluntary turnover rate§	8.1	6.6	7.1	7.1
Involuntary termination rate	9.8	4.1	4.8	3.5

\* All data pertains to representation in Merck's workforce.

† Executives refer to the level of vice president.

‡ Survey not conducted prior to 2006.

§ Overall turnover includes all types of turnover; overall voluntary turnover excludes any involuntary terminations for performance or restructuring.



## MSD SINGAPORE WORKPLACE HEALTH PROGRAMS »

Merck is committed to fostering and promoting employee health; first, because health is a key ingredient for optimal workforce performance; second, because Merck's business is health, we believe we must lead by example; and finally, because a constructive approach to employee health helps to recruit and retain top talent.

In this spirit, MSD Singapore has demonstrated a firm commitment to help their employees lead healthy and vibrant lives through innovative health promotion programs that have gained national recognition. In 2008, MSD earned the platinum (highest honor) level Singapore HEALTH (Helping Employees Achieve Life-Time Health) Award, presented by the Health Promotion Board to give national recognition to organizations with commendable Workplace Health Promotion (WHP) programs. In previous years, MSD has also earned two silver and three gold-level awards.

MSD Singapore takes a holistic approach to health promotion, with a wellness program that encourages healthy eating habits, promotes physical fitness, and provides voluntary educational workshops to increase health literacy. In addition, MSD consciously targets employees' individual health needs by making available occupational health staff who work with employees and their doctors to manage health issues such as cholesterol levels, smoking cessation, and others.



MSD Singapore feels they have a competitive edge on other companies as a caring employer that values employees' health and well-being. It has put in place metrics to gauge the success of its employee health initiatives in terms of increased productivity, cost savings, and reduced employee illness.

launched the Global Constituency Groups (GCGs). The goals of the GCGs align with Merck business priorities and support our corporate strategy (*Plan to Win*). There are ten distinct GCG teams including: Women; Men; Generational; Hispanic; Black; Asia Pacific; Native Indigenous; Lesbian, Gay, Bisexual, Transgender (LGBT); Differently Aabled; and Interfaith. The participants of the GCGs develop and support the strategic initiatives that drive Company-wide culture change that builds upon the goal of global interdependence and collaboration, and will further enhance our efforts to become a high-performance organization that effectively leverages the full breadth and depth of our diverse global talent.

#### WORK-LIFE EFFECTIVENESS, SUPPORT AND FLEXIBILITY

Merck implemented flexible work arrangements in the United States more than ten years ago with the intention that they be used as a business tool and strategy to create a work environment in which employees could simultaneously achieve business objectives and maintain work-life effectiveness. In 2008, we implemented a global flexible work arrangement policy and launched tools to increase access to such arrangements worldwide. As flexible work arrangements grow to being used as a strategic business tool, we believe we will experience increased productivity and innovation as well as enhanced employee engagement. More at: [www.merck.com/cr/flexiblework](http://www.merck.com/cr/flexiblework).

#### ENGAGING WITH OUR EMPLOYEES

To keep in touch with employee perspectives about our culture, Merck conducts an annual Culture Assessment that measures Merck's progress toward becoming a high-performance organization. This includes questions on such topics as teamwork, capability development, customer focus, ability to create change, strategic direction and intent. In direct response to employee feedback from our 2008 survey, the Company is including certain areas as specific measures on our 2009 internal company performance scorecard. We also have continued to reinforce our leadership standards by holding leaders and employees accountable for desired behaviors, such as championing change, understanding our customers' needs, and delivering value to our customers.

#### MERCK'S RESTRUCTURING PROGRAM

On October 22, 2008, Merck outlined the next steps in the Company's ongoing efforts to reduce its cost structure, increase efficiency and enhance competitiveness as part of our overall strategy to regain an industry leadership position. As part of the 2008 restructuring program, Merck expects to eliminate approximately 7,200 positions – 6,800 active employees and 400 vacancies – across all areas of the Company worldwide by the end of 2011. During 2008, the Company

eliminated approximately 5,800 positions in connection with both the 2008 restructuring program and its previously announced 2005 restructuring program. In implementing these difficult but necessary actions, Merck is committed to treating employees with fairness and respect. For more information, go to [www.merck.com/cr/restructuring](http://www.merck.com/cr/restructuring).

#### POSITIVE WORK ENVIRONMENT FUTURE GOALS AND PRIORITIES

- » We want to score at or above the 75th percentile in each dimension of our annual Culture Assessment by 2011.
- » We will strive to increase by 2010 the percentage of employees who say they are satisfied with the opportunity to work flexibly to 80 percent, and increase overall engagement of employees by ten percent. We will begin formally tracking global use of our flexible work arrangements in 2009 and are committed to reporting this information in future reports.
- » By 2012, we plan to increase global female representation at the senior manager level (typically within two reporting levels of our CEO) to 36 percent, and in the United States, to increase under-represented ethnic group representation at the senior manager level to 18 percent.



## FOSTERING SAFETY AND HEALTH IN THE WORKPLACE AND IN OUR COMMUNITIES

Merck provides employees with a wide variety of health programs in alignment with the highest standards of medical care and regulatory requirements to enhance their health and well-being. We are also committed to providing a safe working environment through taking preventive actions as well as closely tracking accidents, injuries or illnesses so that we can address problems promptly and work toward eliminating occupational injuries and illnesses.

In 2007, for U.S.-based employees, Merck introduced *Health Matters* to raise awareness of health issues and motivate employees to manage and improve their health and well-being. To date, about 15 percent of U.S. employees have completed confidential health assessments, and more than 75 percent of those contacted by a coach have opted to work on a health goal utilizing a lifestyle coaching program.

In March 2009, Merck launched a voluntary disease management program that offers confidential professional support for ongoing treatment and care for most U.S. employees and their dependents with specific significant medical conditions. The goal is to help an individual achieve optimal health by providing evidence-based medical information and self-care guidance.

In early 2009, Merck responded to the outbreak of the Influenza A (H1N1 “swine flu”) virus by mobilizing a cross-functional team to develop and deliver to Merck managers and EHS professionals, key documents and support for global employee health and safety guidance, and specific response recommendations. For more on Merck’s contributions to pandemic preparedness, see p. 18.

### FOSTERING EMPLOYEE SAFETY

Merck strives to eliminate work-related injuries and illnesses from our operations globally through full compliance with all applicable country and local safety laws and regulations and implementation of additional beyond-compliance programs. We have established numerous corporate safety policies, procedures, guidelines and standards to aid our operations in achieving these goals.

In 2008, our workplace injury and illness rates decreased from 2007. The recordable injury rate decreased 1.8 percent while the lost-time injury rate decreased 12.5 percent. Our total recordable injury rate is down 9.1 percent and our lost-time injury rate is down 4.5 percent from the end of 2005. Over this same time period, we also undertook actions that dramatically increased reporting of injuries, particularly from our international operations. Overall improvements from 2003 show a 40 percent reduction in the recordable

injury rate and a 23.6 percent improvement in the lost-time rate. The decrease in 2008 lost-time injury rate is primarily attributable to a 30 percent reduction in injuries associated with motor vehicle accidents.

Preventing motor vehicle accidents is a key focus area of our global employee safety efforts. In 2008, we reduced the frequency of work-related vehicle Accidents per Million Miles (APMM) by 25 percent. The reduction in vehicle-related injuries was the primary contributor to the 12.5 percent reduction in overall lost-time injury rate for the Company. Employee days away from work as a result of vehicle accidents were similarly reduced.

Our 2008 capital project construction-related recordable injury rate (RIR) of 1.05 and our Days Away Restricted and Transferred (DART) rate of 0.15 are in line with performance in 2005 and 2006 and represent a 27 percent and a 61 percent reduction from the 2007 recordable injury and DART rates, respectively. Institutionalization of a behavioral “safety observation” program on our construction projects in 2007 and 2008 are one of the main reasons for the recent performance improvements.

For a full account of Merck’s employee safety programs and achievements, go to [www.merck.com/cr/employeesafety](http://www.merck.com/cr/employeesafety).

## SAFETY AND HEALTH » PERFORMANCE DATA SUMMARY 2005–2008

	2008	2007	2006	2005
<b>WORKPLACE SAFETY*</b>				
Reportable injury rate (RIR)	1.10	1.12	1.11	1.21
» RIR change (%)	-1.8	0.9	-8.3	-25.8
Lost-time incident rate (LTIR)	0.42	0.48	0.43	0.44
» LTIR change (%)	-12.5	11.6	-2.3	-13.7
Fatalities	1	1	0	0
<b>Motor Vehicle Safety</b>				
» Accidents Per Million Miles (APMM)	7.03§	9.64	9.92	10.40
<b>Capital Projects Construction Safety*†</b>				
» RIR	1.05	1.45	0.92	1.12
» DART‡/LTIR	0.15‡	0.39‡	0.07‡	0.15
» Fatalities	0	0	0	1
Number of U.S. employees who belong to a Merck fitness center	2,728	3,051	2,757	2,952
Number of U.S. employees who completed the <i>Health Matters</i> health assessment¶	2,140	1,877	N/A	N/A

\* LTIR/RIR: Calculated per OSHA methodology.

† Primarily reflects capital projects over \$100,000 managed by our global engineering group.

‡ DART: Days Away, Reassignment or Transferred calculated per Construction Users Round Table methodology.

§ Change made in definition of accidents to include only business-related accidents.

¶ *Health Matters* not launched until 2007. This metric has been made more specific since reporting last year; prior year data have been adjusted accordingly.

## SAFETY AND HEALTH FUTURE GOALS AND PRIORITIES

- » Our overarching safety goal is zero fatalities.
- » In 2009, Merck will build upon the success of our recent motor vehicle safety initiatives, and strive to reduce the motor vehicle accident rate (percentage of vehicles involved in accidents) by ten percent in 2009 versus 2008 performance.
- » Another key target is to reduce Company-wide recordable and lost-time injury rates by 15 percent each in 2009 versus 2008 performance.

## MANAGING OUR SUPPLY CHAIN

Merck purchases goods and services, ranging from office furniture to waste treatment and disposal services to active pharmaceutical ingredients used in manufacturing our products, from hundreds of suppliers around the world; we also work with numerous licensees worldwide to market and distribute our products. In conducting our business, we follow a global sourcing and relationship management strategy for materials and services worldwide, with a special focus on the top suppliers of critical goods and services. We maintain strict quality, environmental, ethical, health and safety, and labor standards in our own operations – and we insist on responsible standards from our external manufacturers and licensees.

We recognize our responsibility to influence our suppliers and licensees to respect human rights standards defined in the Universal Declaration of Human Rights of the United Nations and the core labor standards set out by the International Labor Organization. Beginning in 2007, Merck's Global Procurement department introduced a new Detailed Supplier Ethical Assessment questionnaire for suppliers of new products and services globally. This assessment tool is used to help identify any significant ethical or human rights concerns and is based on the ethics parameters set forth in Merck's Code of Conduct known as *Our Values & Standards*. If responses to the questionnaire raise concerns, Merck will investigate further and may determine not to do business with the potential supplier. More at: [www.merck.com/cr/supplychain](http://www.merck.com/cr/supplychain).

Our approach to supply chain management aims to ensure the integrity of the supply chain, minimizing the risk that

counterfeits can enter the legitimate supply chain or that legitimate products will be diverted, and thereby ensuring that patients and healthcare professionals can trust that the Merck products they take and prescribe are genuine. More on our anti-counterfeiting efforts on p. 31.

## EXTERNAL MANUFACTURERS OF OUR PRODUCTS

Our mission is to provide the global community with a reliable supply of safe and effective medicines and vaccines. Accordingly, we work hard to protect the integrity of our internal and external manufacturing network.

Merck's supply strategy combines the best skills and talents of our internal manufacturing organization with those of external manufacturers who provide us with specialized skills and/or expertise and types of manufacturing services. The factors Merck evaluates when deciding to source internally or externally include capacity, technical capabilities, core competencies, company priorities and cost. Once we have made a decision to use an external manufacturer, we then select the most appropriate manufacturer based on its ability to meet our business requirements with respect to supply, quality, service, cost and innovation, regardless of geography. In addition to the above criteria, Merck is committed to business relationships with suppliers that share the Company's dedication to conducting business in a legal and ethical manner that is both protective of the safety of our suppliers' workers and surrounding communities and the environment.

In recent years, we have concentrated our internal manufacturing capabilities on core competencies and leveraged external capabilities. This focus has, and will continue to, shift some operations historically conducted internally to our external suppliers. We currently project that external manufacturers will eventually provide up to 35 percent of Merck's manufacturing volume.

In this regard, external suppliers are those external to Merck, not necessarily external to the U.S. In fact, many of our external suppliers are located in the U.S. or are U.S. entities with manufacturing operations outside the U.S. In 2008, approximately 42 percent of Merck's external manufacturing was spent on external manufacturing operations conducted in the U.S.

Merck is committed to providing the global community with quality products and a reliable supply of safe and effective medicines and vaccines. We maintain strict product quality standards and multiple supply chain safeguards to ensure the safety and supply of our products no matter where our medicines and vaccines are manufactured in the world. For more information, go to [www.merck.com/cr/productsafety](http://www.merck.com/cr/productsafety).

## PROMOTING RESPONSIBLE ENVIRONMENTAL, LABOR AND HUMAN RIGHTS STANDARDS IN OUR EXTERNAL MANUFACTURERS

In 2006, Merck was one of the five initial companies to support publicly the Pharmaceutical Industry Principles for Responsible Supply Chain Management, which outline industry, including Merck's, expectations for suppliers' operations with regard to labor, health and safety, environment, ethics and management systems. All Merck suppliers are expected to understand and comply with these principles.

New potential external manufacturers of active pharmaceutical ingredients and finished products are screened prior to selection for any major safety, environmental or human rights issues, in addition to other business requirements such as quality, supply and technical competence. Through 2008, Merck has performed EHS-specific evaluations of approximately 30 potential external manufacturers. As a result of these evaluations, certain potential manufacturers were deemed to be unacceptable due to environmental, health or safety (EHS) issues.

In 2007, we provided all of our existing external manufacturers with our guidelines, a statement of Merck's expectation that each supplier strive for continuous improvement, as well as the screening survey. We have received completed surveys from approximately 81 percent of them as of year end 2008 and are following up actively with the remaining companies. Starting in 2009, we will begin to inspect existing suppliers, starting with the highest risk suppliers, to assess conformance with the Pharmaceutical Industry Principles for Responsible Supply Chain Management.

When concerns arise from either supplier survey responses or on-site inspections, Merck works with the supplier to understand the issue, establish an improvement plan, and offer technical

## SUPPLY CHAIN MANAGEMENT » PERFORMANCE DATA SUMMARY 2005–2008

	2008	2007	2006	2005
Completed Screening Surveys* received from existing external manufacturers (%)	81	54	N/A	N/A
Spending on diverse suppliers (%)	14	12	8	5
Merck procurement employees who have been trained in supplier diversity (%)	100	100	100	0

\* Survey first implemented in 2007.

support if necessary to enable the supplier to achieve the desired outcome. If an existing supplier does not show improvement over a defined period of time, Merck may seek alternative suppliers or discontinue work with the existing supplier.

### ENSURING CONTINUITY OF SUPPLY AMONG EXTERNAL MANUFACTURERS

Millions of people worldwide depend on our medicines and vaccines every day, many of which need to be available without interruption. To minimize disruptions in the supply chain of raw materials, key intermediates, active pharmaceutical ingredients or finished products, Merck manages its manufacturing network by assigning relationship managers to monitor supplier performance, measuring supplier performance against specific quality, supply, service, cost and innovation metrics, and putting in place plans to manage inventory and capacity.

### FOSTERING SUPPLIER DIVERSITY

Merck is committed to diversity both in our workforce and among our suppliers. We cast the widest net in our search for talent, seeking qualified suppliers, large and small, from all segments of the business community. These include minority-, women-, veteran-, service disabled-veteran, HUBZone small and gay- and lesbian-owned business

(LGBT) enterprises. We believe that working with qualified suppliers from diverse segments of the business community supports our business objectives and economic development in the diverse communities that we serve.

In 2008, Merck expanded its supplier diversity program to the United Kingdom and Canada, where Merck is a charter member of the Minority Supplier Development U.K. and a national member of the Canadian Aboriginal Minority Supplier Council. Plans for further expansion to other countries are underway. In addition, in 2008, we made a supplier diversity commitment to reach 14 percent of total applicable spend in the U.S. and Puerto Rico, and to increase that number to 17 percent by 2010.

Our supplier diversity program also seeks to support the development of qualified, diverse suppliers through a number of programs and external efforts. In addition to providing coaching and feedback on performance, in 2008, Merck launched Phase II of our Supplier Diversity Mentor/Champion Program, through which we conduct supplier assessments and create joint development plans with the qualified, diverse suppliers that focus on increasing supplier growth, competitiveness and sustainability. Suppliers in the following categories are currently enrolled

in the program: Research, Information Technology, Construction, Professional Services, Marketing, Direct Materials and Site Services.

### SUPPLY CHAIN MANAGEMENT FUTURE GOALS AND PRIORITIES

- » We plan to increase supplier diversity to 17 percent of total applicable spend in the U.S. and Puerto Rico by 2010.
- » We plan to achieve 100 percent completion of pre-selection Detailed Suppliers Ethical Assessment by potential suppliers of new business globally by 2010.
- » We plan to implement annual supplier supplemental ethics standards training for each procurement employee by 2010, and develop a Supplier Code of Conduct by 2010.
- » We plan to achieve 100 percent completion of the EHS and human rights Screening Survey by existing external manufacturers of pharmaceutical intermediates and compounds by end of 2009.
- » We plan to develop formal risk mitigation plans, where required, for external manufacturers who require improvements to conform with the Pharmaceutical Industry Principles for Responsible Supply Chain Management.

# Philanthropy at Merck

Philanthropy is a major element of Merck's commitment to corporate citizenship. Through our philanthropic programs we have the ability to make a positive impact on healthcare access and capacity-building, science education and quality of life issues facing the world's communities.

We believe that making charitable contributions to improve global health is one of the most responsible and important ways we can actively engage in finding solutions to global problems.

Merck's philanthropic investments and program portfolio are guided by several key principles. We seek to:

- » Address critical social issues and needs that matter to Merck's business and our stakeholders;
- » Collaborate effectively with key partners for optimal impact and success in changing outcomes around these issues;
- » Measure and report our progress in meeting these critical needs;
- » Leverage not only cash and product donations, but also knowledge and technical expertise across our Company.

We recognize that our customers, communities, neighbors and investors have an interest in how we conduct ourselves and how we support our commitment to society. Our philanthropy must also reflect efficient, responsible and ethical judgment and behavior. To this end, the Merck Philanthropy Advisory Council (MPAC), the Merck Executive Committee and the Board of Directors Committee on Public Policy and Social Responsibility provide oversight, strategic counsel and regular review of Merck's overall corporate philanthropy portfolio. In July 2009, The Merck Company Foundation underwent a voluntary internal audit to ensure uniform giving, accurate impact data, compliance and support for Company transparency efforts. Internal audits will be conducted on a regularly scheduled basis.

Four strategic areas guide Merck's Corporate Giving strategy:

**Increase access to health care for underserved populations through strategic partnerships and capacity-building.** Key initiatives include:

- » Merck MECTIZAN Donation Program
- » Merck Medical Outreach Program
- » Merck Childhood Asthma Network
- » The Alliance to Reduce Disparities in Diabetes
- » The African Comprehensive HIV/AIDS Partnerships
- » China-MSD HIV/AIDS Partnership
- » The Merck Vaccine Network-Africa
- » The GARDASIL Access Program

**Develop a world-class pool of scientists through strengthening educational opportunities.** Key initiatives include:

- » The Merck Institute for Science Education
- » The UNCF/Merck Science Initiative
- » Rutgers University Future Scholars Program
- » AAAS/Merck Undergraduate Science Research Program
- » The Alliance/Merck Ciencia (Science) Hispanic Scholars Program

**Encourage environments that foster and support innovation.** Key initiatives include:

- » Program on Pharmaceutical Policy Issues
- » Regional Strategic Grants Program
- » Ethics Resource Centers

**Identify and initiate community projects that address critical quality of life issues.** Key initiatives include:

- » Rx to Fight Hunger
- » Neighbor of Choice
- » Champions for the Environment
- » Disaster Relief
- » Partnership for Giving
- » Global Volunteering
- » Dollars for Doers

More detailed information on each of these programs can be found at [www.merck.com/cr/philanthropy](http://www.merck.com/cr/philanthropy).

This strategy is managed through three mechanisms:

**Merck's Office of Corporate Philanthropy** supports charitable work through cash donations and employee volunteerism that contributes not only to the health and well-being of people around the world, but also to Merck employees, our neighbors and others in communities where employees live and work, and where the Company conducts business.



The **Office of Corporate Responsibility and Global Policy Support** engages with a range of stakeholders on initiatives that build healthcare capacity, and provides donations of Merck's medicines and vaccines, primarily in the developing world. The group manages the Merck Medical Outreach Program, the primary mechanism through which Merck donates our pharmaceuticals and vaccines for humanitarian assistance, as well as the Merck MECTIZAN Donation Program, developing world vaccine access programs and our global HIV/AIDS partnerships.

The **Merck Company Foundation**, a 52-year-old, U.S.-based, private charitable foundation funded entirely by Merck, provides funding to The African Comprehensive HIV/AIDS Partnership, China-MSD HIV/AIDS Partnership, Merck Childhood Asthma Network and The Merck Institute for Science Education, among other programs. Since its inception, the Foundation has contributed more than \$560 million to projects and partnerships around the world.

## CHARITABLE GRANTS

In accordance with its commitment made in last year's report, in March 2009 Merck reported on its website charitable contributions made in 4Q2008 through the Office of Corporate Philanthropy and The Merck Company Foundation.<sup>1</sup> Information provided on our website includes the name of the organization, program name and description, and the

amount of the grant provided. Merck plans to update this list annually beginning with a full 2009 report in 1Q2010.

## MAKING AN IMPACT IN OUR LOCAL COMMUNITIES

In a variety of ways, Merck's philanthropic programs address local community needs, support environmental stewardship, respond in times of emergency, and enable our employees to contribute and participate in community well-being.

- » In a collaborative partnership with the National Alliance for Hispanic Health, we launched the Alliance/Merck Ciencia (Science) Hispanic Scholars Program in 2008 to improve the ability of Hispanic students to achieve access to higher education and pursue science, technology, engineering and mathematics careers. The Merck Company Foundation committed \$4 million in funding to this program over five years; The Merck Institute for Science Education is working closely with the Alliance to implement the program.
- » In April 2008, we created The Alliance to Reduce Disparities in Diabetes – a new initiative to help reduce healthcare disparities related to diabetes among minority, low-income and underserved groups in the U.S. The Merck Company Foundation officially launched the initiative in February 2009 (see box on p. 58).
- » Following the May 12, 2008 earthquake in China's Sichuan Province, Merck donated more than \$1 million in resources to address immediate needs of the recovery efforts. As part of a post-earthquake recovery program organized by the White House and the U.S. Agency for International Development (USAID), Merck is addressing health infrastructure needs in Sichuan Province. In May 2008, Merck also donated more than \$720,000 in cash, product and employee contributions to relief efforts in the wake of the Myanmar Cyclone.
- » After thousands of Americans were left without food and shelter due to the hurricanes that struck the Gulf Coast region in late summer 2008, The Merck Company Foundation responded with a \$250,000 contribution to the American Red Cross Disaster Relief Fund to help provide food, shelter, counseling and other critical services for individuals and families battered by hurricanes Dolly, Edouard, Fay, Gustav, Hanna and Ike. In a new effort to help prevent future damage from natural disasters, the Foundation donated \$200,000 to the Nature Conservancy to build up natural protective marshlands along both the Gulf Coast and the New Jersey shoreline. The Office of Corporate Responsibility and Global Policy Support donated \$64,855 in Merck medicines specifically to support Hurricane Gustav relief efforts.

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## Rx FOR HUNGER »

In response to the recent acceleration and expansion of a national food shortage crisis in the United States, Merck has launched a community initiative to increase access to healthy foods and nutrition and to support the food bank safety net for children and seniors in U.S. communities. Through contributions, volunteering, and conferences to speak out about the urgency of addressing the sharp drop of U.S. food supplies, Merck hopes to lessen the effects of malnutrition and food insecurity on vulnerable individuals and families. To date, Merck has made more than \$200,000 in financial contributions to local food banks and pantries – particularly in communities

where Merck has a major presence – and to organizations, such as Meals on Wheels Association of America and Witnesses to Hunger, a Drexel University program. In addition, food drives were held at most major Merck facilities in the U.S. In February 2009, Merck – in partnership with the Healthcare Institute of New Jersey and the Liberty Science Center – hosted the Rx to Fight Hunger conference – a no-cost, participatory conference for funders in the New Jersey, New York, Pennsylvania and Delaware region, through which an additional \$400,000 was committed by other, non-Merck funders towards nutrition and hunger programs.



## THE ALLIANCE TO REDUCE DISPARITIES IN DIABETES »

On February 25, 2009, The Merck Company Foundation launched a new initiative, The Alliance to Reduce Disparities in Diabetes ([www.alliancefordiabetes.org](http://www.alliancefordiabetes.org)), in collaboration with the Centers for Disease Control and Prevention (CDC) and U.S. Department of Health and Human Services' Office of Minority Health (OMH). Supported by a \$15 million commitment through 2013, this initiative is designed to improve healthcare delivery among those populations most at risk for diabetes – African-American, Hispanic and Native American adults in the United States. The Alliance will engage a range of healthcare stakeholders, including patients, providers and health system leaders, in supporting proven approaches to comprehensive diabetes prevention and management.

Through a rigorous, competitive application process, the Foundation selected five grantee programs from among the more than 190 applications received from around the United States.

The program sites are: Camden, New Jersey; Chicago, Illinois; Dallas, Texas; Fort Washakie, Wyoming and Memphis, Tennessee. Funding will support community-based efforts to decrease diabetes disparities and enhance the quality of health care by improving prevention and management services among low-income and underserved populations with a high prevalence of type 2 diabetes.

The University of Michigan's Center for Managing Chronic Disease will serve as the Alliance Program Office and support the program efforts of the grantee communities over the next five years as well as provide leadership in building the Alliance as a national partnership.

## CHAMPIONS FOR THE ENVIRONMENT

Through the Champions for the Environment program, Merck provides grants for environmentally focused and educational projects. Successful projects have another key element: Merck employee volunteers work alongside community volunteers to accomplish the projects. Since the program's inception, Merck employees have "championed" hundreds of projects – and volunteered thousands of hours on behalf of local non-profit partners, including schools, local government and environmental and youth organizations. Projects focus on a range of community-based environmental needs such as wildlife habitat preservation, stream cleanups and bank restoration, phytoremediation, energy conservation and climate change, and recycling and resource conservation.

The following is a representative sample of Merck's 2008 Champions for the Environment programs:

**U.S.** – Triangle Land Conservancy (TLC) is the local non-profit land trust for the Triangle region of North Carolina. Merck's Champions for the Environment grant helped TLC conduct biological inventories, create management plans, and perform other duties as part of TLC's mission to care for the natural areas of the region. Merck employee volunteers from our Durham facility were stewards of the properties by cleaning up litter, establishing boundaries and access barriers, and posting signage.

**COSTA RICA** – A team of Merck volunteers helped the *Tropical Sierra Foundation* turn the area of Monte de la Cruz, San Rafael de Heredia Costa Rica into an outdoor environmental education center designed to teach children from

40 different high schools how to protect and conserve the area's lush natural habitat. The center hosted educational workshops and volunteers were involved in activities such as building footpaths, establishing a medicinal garden, planting trees and putting up interpretive signage featuring local flora and fauna.

**CHINA** – Employees at Merck's Hangzhou, China facility helped "Green Zhejiang," a youth volunteer group, select and implement proposals for creating environmentally-friendly communities in the city. The project was inspired by China's "Green Olympics" campaign to integrate environmentally-friendly concepts into the venues for the 2008 Olympics.

### NEIGHBOR OF CHOICE

Through the "Neighbor of Choice" (NOC) program, Merck demonstrates its sensitivity and responsiveness to the specific concerns and needs of local communities in which we operate.

The NOC program, which Merck developed in the mid-1990s, is based upon three fundamental principles:

- » Listen to and identify the community's essential needs, issues and concerns;
- » Respond appropriately to these needs, issues and concerns;
- » Establish and develop relationships of trust with community groups and individuals.

At the heart of the NOC program is relationship building. Merck facilities develop culturally appropriate mechanisms to engage and build relationships with their community stakeholders. Some sites have created community

review boards; others host neighbor or "town hall" meetings to seek input from communities on key developments. Sites also use community surveys and focus groups with fenceline neighbors and employees to assess community interests, concerns and needs. Based on the input, Merck seeks issue-specific proposals developed by community organizations to address those needs, taking into account the impact of a problem on the local community, the urgency of the issue and the resources available to address the problem. Proposals are reviewed by local site philanthropy committees, based upon uniform guidelines and funding criteria, which make funding recommendations to Merck. The NOC program follows Merck's philanthropic guidelines, but recognizes that our stakeholders value other educational, civic, art and cultural, and environmental programs and therefore these are considered for funding under the NOC program.

The following is a representative sample of Merck's NOC programs:

**U.S.** – In Harrisonburg/Rockingham County, Virginia, a grant from Merck's NOC program supports the Harrisonburg-Rockingham Free Clinic, which provides outpatient health services to the uninsured. The grant specifically supports the Pharmacy and Medication Assistance Program, which provides free medications and supplies to all Free Clinic patients.

**MEXICO** – Merck employees and parents of children at three public schools near the Merck manufacturing site – a kindergarten, an elementary school and a special education school – are working together on a project in which the schools are being painted, play areas and classrooms are being repaired and

## EMPLOYEE VOLUNTEERING »

In January 2009, Merck initiated a *Global Volunteering* policy encouraging individual employees and teams of employees to become involved in appropriate volunteering activities in Merck communities. Under this policy, eligible Merck employees may receive up to 20 paid work hours per calendar year to volunteer. Merck volunteers address a variety of societal challenges, from HIV education in Brazil, “Roll Up Your Sleeves” in the Netherlands, “Lend a Hand” in Malaysia and “Clean Up Australia Day,” to an award-winning pro-bono legal assistance program in the United States and “Community Days” in the Philippines. To date Merck employees across 26 sites have volunteered close to 50,000 hours in community volunteer projects. To read about these local programs, go to [www.merck.com/cr/employee giving](http://www.merck.com/cr/employee giving).



enhanced, handrails are being installed to improve safety, and other improvements are being made.

**SPAIN** – Merck made a NOC contribution to support the Rainbow Foundation – a social and economic growth initiative in Madrid that employs people with disabilities at a center that specializes in the packaging of diverse goods. With this grant, the Rainbow Foundation was able to purchase a cellophane banding machine, install an assembly line and start-up the operation. In addition, the Rainbow Foundation was able to expand its activities by hiring 12 new employees.

FUTURE GOALS  
AND PRIORITIES

Through Merck philanthropy and partnerships with the non-profit community, we plan to continue to address access to health care for underserved populations, strengthening science education opportunities, support for innovation, and critical quality of life issues. We will also strive to achieve the following goals:

- » Incorporate “best practices” and continue to make our grants and grant making processes transparent, integrating Merck’s guiding principles, values and philanthropic priorities.
- » Improve evaluation approaches by incorporating performance measurement tools into appropriate programs.

We recognize that measurable goals with reasonable timeframes for success will help Merck understand how it can best create shared social and business value.

- » Expand our global volunteering program to include skills-based placement to help develop our employees’ skills and talents, and to help strengthen the non-profit sector.
- » Drive more in-depth relationships with employees, community organizations and partners who share a common interest in charitable work.

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## CONTRIBUTIONS » DATA SUMMARY, 2005–2008 » (US\$, MILLIONS)

	2008	2007	2006	2005
Merck’s philanthropic contributions (Total cash and product)	821	828	826	1,039
Cash contributions	55	62	58	60
Product donations through Merck Medical Outreach Program and the MECTIZAN Donation Program	592	605	442	437
Product donations through U.S. Patient Assistance Program*	174	161	326	542

\* Decline due in part to an increasing number of patients with prescription drug coverage, including Medicare Prescription Drug Program; another contributing factor to usage decline was the removal of one Merck product – FOSAMAX – from the product list in mid-2008 (six months after patent expiry) once patients had broad access to lower-cost generic equivalents.

1 [www.merck.com/corporate-responsibility/docs/TMCF\\_Grants\\_Trans\\_Report-4Q08.pdf](http://www.merck.com/corporate-responsibility/docs/TMCF_Grants_Trans_Report-4Q08.pdf)

## KEY PERFORMANCE INDICATORS

	2008	2007	2006	2005
<b>Economic indicators</b>				
Sales (US\$M)	23,850.3	24,197.7	22,636.0	22,011.9
Annual cash dividend paid per share (US\$)	1.52	1.52	1.52	1.52
Global tax expense as reported on income statement (US\$M) <sup>[a]</sup>	1,999.4	95.3	1,787.6	2,732.0
<b>Researching new medicines and vaccines to address unmet needs</b>				
Merck's investment in R&D programs (US\$B) <sup>[b]</sup>	4.8	4.9	4.8	3.8
Number of new products approved (Number of products in pipeline [Phase I-III] and under regulatory review)	1 (47)	2 (49)	5 (57)	2 (58)
Percentage of top 20 global burdens of illness addressed by our products and pipeline (as defined by WHO and excluding accidents, premature birth and self-inflicted injuries) <sup>[c]</sup>	53	60	N/A	N/R
Phase II-V clinical trials initiated (in number of countries) <sup>[d,e]</sup>	36 (62)	45 (54)	43 (49)	N/R
Manuscripts of clinical trial results and related papers submitted to peer-reviewed journals	235	172	172	N/R
<b>Improving access to medicines, vaccines and health care</b>				
Number of Merck products for which not-for-profit prices are offered to least developed countries	6	6	2	2
Number of patients on Merck ARV therapy – all formulations, all products (Percentage in the developing world)	653,867 (76)	763,118 (91)	701,391 (93)	N/D
Percentage of total patients on Merck ARVs estimated to be children taking pediatric formulations of Merck's ARVs	17	15	19	N/D
Number of countries where Merck has committed to not-for-profit prices for ROTATEQ and GARDASIL	72	72	N/R	N/R
Number of low- and middle-income countries using Merck's vaccines in their public sectors	16	11	N/R	N/R
Number of new country registrations of GARDASIL and ROTATEQ globally (and cumulative to date) <sup>[e]</sup>	18 (196)	72 (178)	105 (106)	1 (1)
Product donations (US\$M) [% in the developing world] <sup>[f]</sup>	766 (77)	766 (79)	768 (58)	979 (45)
Millions of treatments approved for river blindness through the MECTIZAN Donation Program (at three tablets per treatment)	174.2	128	118	114
Number of patients utilizing Merck's Patient Assistance Program (total value of Merck medicines dispensed under Merck's PAP <sup>[g]</sup> [US\$M])	250,285 (174)	350,000 (161.5)	540,240 (326)	730,000 (502)
Major PPPs to improve access to medicines, vaccines or health care <sup>[h]</sup>	12	13	12	10
<b>Ensuring confidence in the safety and quality of our products</b>				
Product recalls in the United States	0	2	0	1
Number of investigations of suspected counterfeit Merck product	45	102	73	51
Number of substantiated cases of counterfeit Merck product	29	72	54	46
<b>Conducting ourselves ethically and transparently</b>				
Percentage of required employees who took <i>Know the Code</i> training	90	90	N/A	N/A
Percentage of response to disclosure statement on conflicts of interest	99.9	97	95	93
Number of calls to the Merck AdviceLine	151	149	77	80
Number of calls to the Office of Ethics/Ombudsman	583	600	597	770
Percentage of substantiated (including alternative findings) allegations to concerns/issues raised in connection with our Code of Conduct through AdviceLine or Office of Ethics/Ombudsman <sup>[i]</sup>	10.9	9.5	8.3	10.2

	2008	2007	2006	2005
<b>Conducting ourselves ethically and transparently (continued)</b>				
Number of warning letters or untitled letters from DDMAC or APLB	0	N/R	N/R	N/R
Merck operations at significant risk of forced or compulsory labor, incidents of child labor, or violations of the right to exercise freedom of association and collective bargaining.	0	0	0	N/D
<b>Managing our environmental footprint</b>				
Environmental inspections	101	76	88	N/D
Environmental events <sup>[i]</sup>	53	60	28	32
Environmental notices of violation	9	13	11	N/A
Environmental fines paid (US\$) <sup>[k]</sup>	1,579,600	31,515	10,652	281,025
Total energy supply (Million BTUs x 10 <sup>6</sup> )	12.8	15.2	15.5	17.5
Energy demand intensity (Million BTU/sq ft)	0.47	0.52	0.54	0.61
Total GHG emissions (as CO <sub>2</sub> eq) (Million metric tons) <sup>[l]</sup>	1.18	1.29	1.29	1.36
Total water usage (billion gallons) [% reduction versus prior year]	5.6 [36]	8.8 [8.3]	9.6 [5]	10.1 [13.6]
Emissions of ozone-depleting substances (metric tons)	1.2	1.4 <sup>[m]</sup>	N/D	N/D
Nitrogen oxides (NO <sub>x</sub> ) emissions (metric tons)	297	318 <sup>[n]</sup>	322 <sup>[n]</sup>	471 <sup>[n]</sup>
Sulfur oxides (SO <sub>x</sub> ) emissions (metric tons)	50	58	67 <sup>[n]</sup>	84
Emissions of volatile organic compounds (VOCs) (metric tons)	353	401 <sup>[m]</sup>	427	411
TRI emissions (metric tons to air and water)	196	270	242	163
Hazardous waste generated in metric tons [% recycled]	46,800 [29]	54,000 [23]	62,300 [29]	60,900 [37]
Metric tons non-hazardous waste generated	27,000	32,000 <sup>[n][o]</sup>	N/D	N/D
Percentage of non-hazardous waste recycled	46	42 <sup>[n][o]</sup>	N/D	N/D
<b>Advocacy and outreach</b>				
Corporate political contributions (U.S., CAN, AUS) (US\$) <sup>[p]</sup>	US: 597,775 AUS: 5,040 CAN: 30,695	US: 470,625 AUS: 19,195 CAN: 58,396	US: 611,975 AUS: 20,292 CAN: 45,765	US: 337,140 AUS: 12,137 CAN: 46,700
Portion of dues that major U.S.-based trade associations report to us as being used for advocacy and/or political activities in the U.S., where dues are >\$50,000 (US\$M) <sup>[q]</sup>	6.8 paid to 8 groups	6.9 paid to 8 groups	N/A	N/A
Compliance with political contribution evaluation criteria used by the Center for Political Accountability	All 11 principles	10 of 11 principles	N/A	N/A
<b>Valuing our employees</b>				
Number of employees	55,200	59,800	60,000	61,000
Total compensation paid to employees/payroll excluding benefits (US\$B)	5.03	5.56	5.14	4.84
Women in workforce (globally) [%]	50	48	49	49
Women on the Board [%]	21	23	25	25
Women in executive roles (U.S.) [%]	28	27	26	28
Under-represented ethnic groups on the Board [%]	14	17	17	17
Under-represented ethnic groups in executive roles [%]	11	11	12	12
Employee response rate to Merck Culture Assessment survey [%]	65	72	77	N/A <sup>[r]</sup>
Number of position eliminations through Merck's restructuring program	5,800	2,400	3,700	1,100
Overall turnover rate <sup>[s]</sup>	17.6	10.7	11.9	10.6
Safety inspections	75	41	65	N/D
Notices of safety violations/citations	7	3	8	N/D

	2008	2007	2006	2005
<b>Valuing our employees (continued)</b>				
Safety fines paid (US\$) (Number of fines)	0 (0)	1,500 (1)	1,975 (2)	1,000 (2)
Reportable Injury Rate (RIR) <sup>[t]</sup>	1.10	1.12	1.11	1.21
RIR change [%]	-1.8	0.9	-8.3	-25.8
Lost-Time Incident Rate (LTIR) <sup>[t]</sup>	0.42	0.48	0.43	0.44
LTIR change [%]	-12.5	11.6	-2.3	-13.7
Fatalities	1	1	0	0
Accidents per million miles (APMM) <sup>[u]</sup>	7.03	9.64	9.92	10.40
<b>Supply chain management<sup>[v]</sup></b>				
Spending on diverse suppliers in the U.S. [%]	14	12	8	5
Completed Screening Surveys received from existing external manufacturers [%] <sup>[w]</sup>	81	54	N/A	N/A
<b>Philanthropy</b>				
Merck's philanthropic contributions (total cash and product) (US\$M)	821	828	826	1,039
Cash contributions (US\$M)	55	62	58	60

#### KEY

N/A: Not applicable. N/D: No data. N/R: Not reported; many of these indicators are new for Merck and for this reason some prior year data points are not reported.

[a] Amounts from 2008 include a gain on distribution from AstraZeneca LP, a gain related to the sale of the Company's remaining worldwide rights to Aggrastat, the favorable impact of certain tax items, the impact of restructuring actions, additional legal defense costs and an expense for a contribution to The Merck Company Foundation.

[b] Research activities and investments include all Merck divisions.

[c] The decrease in 2008 is due mainly to the changing nature of the Global Burden of Disease as defined by WHO.

[d] We have modified this KPI from last year to report clinical trials initiated vs. clinical trials conducted.

[e] Prior year data have been adjusted due to a change in methodology.

[f] We value our product donations based on the U.S. wholesale price. The decrease in product donations is due in part to declining patient enrollment in our Corporate U.S. Patient Assistance Program, attributed in part to an increasing number of patients with prescription drug coverage, including through the Medicare Prescription Drug Program, which began in January 1, 2006. Figure includes Merck Medical Outreach Program (including ACHAP), MECTIZAN Donation Program, and Merck U.S. Patient Assistance Program.

[g] Totals include the U.S. Merck Vaccine Patient Assistance Program and are based on the U.S. wholesale price. Decrease in numbers due in part to increasing number of patients with prescription drug coverage, including Medicare Prescription Drug Program.

[h] Major is defined as with an investment by Merck of more than \$500,000 per year and/or engagement with a national government. Therefore, in 2008 these included ACHAP, AAI, C-MAP, Diabetes Alliance, GARDASIL Access Program, MCAN, MDP, MISE, MMOP, MVN-A, ROTATEQ Access Program and the UN Foundation Measles Initiative.

[i] When Merck substantiates allegations of ethical misconduct, it imposes a variety of disciplinary actions on those responsible for the misconduct, such as dismissal from the Company, issuance of final written warning letters and financial penalties.

[j] The increase in the number of environmental events is due primarily to a modified Pennsylvania Department of Environmental Protection interpretation in late 2006 that resulted in reporting of spills, such as chilled water spills into storm water drains, that were not previously required to be reported.

[k] Reflects a significant environmental settlement (\$1,575,000) paid in early 2008 associated with three spills that occurred in 2006.

[l] In accordance with US EPA Climate Leaders Protocol, GHG generation baseline data have been adjusted to remove facilities that have been sold.

[m] Data unavailable for a site sold at the end of 2007.

[n] Prior year data have been modified to reflect corrections identified after publication of previous report.

[o] 2007 was the first year we collected non-hazardous waste generation and recycling data. Data should be considered estimates.

[p] Totals reflect corporate contributions. Employee contributions through the Merck PAC are not included. Political contributions in the U.S., which are for state candidates, are always much greater in even-numbered calendar years, because that is when most states hold their elections for state legislatures and governors.

[q] Because the U.S. tax law that requires reporting does not apply outside the United States, trade associations do not provide break-outs of lobbying expenditures from membership dues. Thus, Merck is unable to report this data in other countries. This line includes dues for advocacy purposes for major U.S. national and regional associations where dues are \$50,000 or more.

[r] Survey not conducted prior to 2006.

[s] Overall turnover includes all types of turnover including restructuring.

[t] LTIR/RIR: Calculated per OSHA methodology.

[u] Change made in definition of accidents to include only business-related accidents.

[v] We no longer report percentage of facility visits conducted of potential manufacturers of new business as our screening surveys are adequate for exploratory purposes. We have, therefore, removed the percentage of facility visits from our list of KPIs.

[w] Survey first conducted in 2007.



## OUR MEDICINES AND VACCINES

PRODUCT NAME	THERAPEUTIC AREA
<b>ATHEROSCLEROSIS &amp; CARDIOVASCULAR</b>	
COZAAR® (losartan potassium)*	High blood pressure
HYZAAR® (losartan potassium and hydrochlorothiazide)	High blood pressure
TREDAPTIVE® (ER niacin/laropiprant)†	High cholesterol
VYTORIN® (ezetimibe/simvastatin)‡	High cholesterol
ZETIA® (ezetimibe)‡	High cholesterol
<b>DIABETES &amp; OBESITY</b>	
JANUMET® (sitagliptin/metformin HCl)	Type 2 diabetes
JANUVIA® (sitagliptin phosphate)	Type 2 diabetes
<b>INFECTIOUS DISEASES</b>	
ATRIPLA® (efavirenz 600mg/emtricitabine 200 mg/tenofovir disoproxil fumarate 300 mg)§	HIV infection
CANCIDAS® (caspofungin acetate)	Certain fungal infections
CRIXIVAN® (indinavir sulfate)	HIV infection
INVANZ® (ertapenem sodium)	Certain bacterial infections
ISENTRESS® (raltegravir)	HIV infection
PRIMAXIN® (imipenem and cilastatin)	Certain bacterial infections
STOCRIN® (efavirenz)¶	HIV infection
<b>NEUROSCIENCE &amp; OPHTHALMOLOGY</b>	
COSOPT® (dorzolamide hydrochloride and timolol maleate)	Elevated intraocular pressure
MAXALT® (rizatriptan benzoate)	Acute migraine
SAFLUTAN® (tafluprost)\\	Elevated intraocular pressure
TIMOPTIC-XE® (timolol maleate ophthalmic gel forming solution)**	Elevated intraocular pressure
TRUSOPT® (dorzolamide hydrochloride)	Elevated intraocular pressure
<b>ONCOLOGY</b>	
EMEND® (aprepitant)	Prevention of postoperative or chemotherapy-induced nausea and vomiting
EMEND® for Injection (fosaprepitant dimeglumine)	Intravenous prevention of chemotherapy-induced nausea and vomiting
ZOLINZA® (vorinostat)	Cancer (cutaneous T-cell lymphoma [CTCL])
<b>RESPIRATORY, BONE, ARTHRITIS &amp; ANALGESIA</b>	
ARCOXIA® (etoricoxib)	Pain and arthritis
FOSAMAX® (alendronate sodium)	Osteoporosis
FOSAMAX PLUS D® (alendronate sodium/cholecalciferol)	Osteoporosis
SINGULAIR® (montelukast sodium)	Asthma, indoor and outdoor allergies
<b>SPECIALTY</b>	
PROPECIA® (finasteride)	Male pattern hair loss
<b>VACCINES</b>	
COMVAX® [Haemophilus b conjugate (meningococcal protein conjugate) and hepatitis B (recombinant) vaccine]	Haemophilus influenzae type b and hepatitis B
GARDASIL® [human papillomavirus quadrivalent (types 6, 11, 16, 18) vaccine, recombinant]	Cervical cancer, cervical lesions, vulvar lesions, vaginal lesions and genital warts caused by HPV types 6, 11, 16 and 18
M-M-R® II (measles, mumps and rubella virus vaccine live)	Measles, mumps, rubella (German measles)
PEDVAXIB® [Haemophilus b conjugate vaccine (meningococcal protein conjugate)]	Haemophilus influenzae type b
PNEUMOVAX® 23 (pneumococcal vaccine polyvalent)	Pneumococcal disease
PROQUAD® [measles, mumps, rubella and varicella (Oka/Merck) virus vaccine live]	Measles, mumps, rubella (German measles) and chickenpox
RECOMBIVAX HB® [hepatitis B vaccine (recombinant)]	Hepatitis B
ROTATEQ® (rotavirus vaccine, live, oral pentavalent)	Rotavirus
VAQTA® [hepatitis A vaccine inactivated]	Hepatitis A
VARIVAX® [varicella virus vaccine live (Oka/Merck)]	Chickenpox
ZOSTAVAX® (zoster vaccine live)	Shingles

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† TREDAPTIVE is to be marketed under the trademark CORDAPTIVE in Latin America.

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§ ATRIPLA is marketed by and is a trademark of Bristol-Myers Squibb and Gilead in the United States, Canada and Europe. Merck and Gilead are working to register and distribute ATRIPLA in 106 developing countries around the world.

¶ Efavirenz is marketed by Bristol-Myers Squibb as SUSTIVA in the United States, Canada and certain European countries, and by Merck in the rest of the world as STOCRIN.

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# Awards and Recognition

Merck has received recognition for our commitment and performance worldwide on various aspects of our corporate responsibilities, including the following:



- » **Dow Jones Sustainability Indexes** – Merck has been placed on the Dow Jones Sustainability North America Index, which is based on a thorough analysis of corporate economic, environmental, and social performance. The North American Index captures the leading 20 percent in terms of sustainability out of the largest 600 North American companies. (2009)



- » **FTSE4Good** – Merck is a FTSE4Good constituent member. The FTSE4Good Index Series has been designed to measure the performance of companies that meet globally recognized corporate responsibility standards. (2008, 2009)



- » **KLD Research and Analytics** – In 2008 Merck was a member of the Domini 400 Social Index, KLD Global Sustainability Index, KLD North America Sustainability Index and the KLD Select Social Index. In 2009 Merck is a member of the FTSE KLD US All Cap Sustainability Index (USSA), FTSE KLD 400 Social Index, FTSE KLD US Large Cap Sustainability Index, FTSE KLD US Large-Mid Cap Sustainability Index and FTSE KLD Select Social Index. The FTSE KLD indices measure companies' environmental, social and governance (ESG) performance.



- » **Access to Medicines Index** – Ranked Merck No. 3 on its inaugural Index, which assesses and ranks the world's 20 largest pharmaceutical companies based on various criteria around global access to medicines. (2008)



- » **Corporate Responsibility Officer Magazine** – Ranked Merck No. 4 on the 10th Annual 100 Best Corporate Citizens List. The tenth annual list rates companies on their performance in seven key areas: environment, climate change, human rights, philanthropy, employee relations, financial and governance. (2009)



- » **DiversityInc** – Ranked Merck No. 8 in its annual list of the "Top 50 Companies for Diversity" marking the Company's seventh consecutive appearance on the list. (2008)



- » **Environmental Protection Agency (EPA)** – Recognized Merck with the 2009 ENERGY STAR Sustained Excellence Award for continued efforts to protect the environment. Merck, an ENERGY STAR partner since 2004, has been recognized by the EPA for four consecutive years – twice as Partner of the Year and twice for Sustained Excellence. (2009)

For a full listing of past awards, recognition and index memberships go to [www.merck.com/cr/awards](http://www.merck.com/cr/awards).

# Environmental Savings

Based on 5,100 lbs. of Mohawk Via Cool White 100% PC Recycled Paper, actual environmental savings are as follows:

- » 48.96 trees saved
- » 20,797 gallons of waste water flow saved
- » 4,531 pounds of net greenhouse gases prevented
- » 2,354 pounds of air emissions not generated
- » 141.38 pounds of water-borne waste not created
- » 2,301 pounds of solid waste not generated
- » 34,680,000 BTUs of energy not consumed
- » 5,601 cubic feet of natural gas unused





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