2010 Annual Report

Building on Breakthroughs

International Partnership for Microbicides

Dr. Zeda F. Rosenberg
Chief Executive Officer

Dr. Peter B. Corr
Chair of the Board

Building on Breakthroughs

Dear Friends and Colleagues,

The HIV prevention community has had many reasons to celebrate over the past year. Several pivotal studies have demonstrated that antiretroviral (ARV)-based prevention, whether in the form of vaginal microbicides or once-daily oral tablets, is a safe and effective way to significantly decrease HIV infection. After decades of persistent research—thanks to the dedication of scientists and study volunteers around the world—there is now proof-of-concept for a technology that has the potential to save millions of lives.

For microbicides, the path forward is clear. Several microbicide studies are now underway to confirm tenofovir gel's ability to prevent HIV infection in women. Other planned studies will explore new, longer-acting products that could further improve adherence and effectiveness. In the coming year, IPM, with its partner, the US National Institutes of Health-funded Microbicide Trials Network, will advance a long-acting ARV-based microbicide ring into a Phase III licensure program, including expanded safety studies. The ring could provide sustained protection against HIV for a month at a time or longer.

Developing and delivering successful HIV-prevention products requires strong science and a robust pipeline of different prevention options—along with sufficient financial resources to deliver on the promise of ARV-based technologies for those who urgently need them.

We are deeply grateful to our donors, Board of Directors and scientific advisors for their long-standing support for HIV prevention. We also want to acknowledge the hard work of the IPM staff and thank our former Board Chair, Dr. Alex Coutinho, for his outstanding leadership during a year of such transformational change in the field.

This past year's success has energized scientists and activists who have been pursuing new prevention methods since HIV was first identified 30 years ago. It is up to all of us to work together to make this dream a reality.

Zeda F. Rosenberg
Dr. Zeda F. Rosenberg

Dr. Peter B. Corr

HIV/AIDS poses one of the world's most serious challenges to public health and poverty reduction.

The HIV/AIDS epidemic not only exacts an especially high price from the world's most vulnerable societies, it also has a higher impact on women due to a mix of biology and social realities. In sub-Saharan Africa, young women ages 15-24 are at least twice as likely — and as much as five times as likely — as young men to be HIV positive, yet women often lack effective tools they can use to prevent infection. This is where microbicides can play a vital role.

Microbicides: An Important Part of the Solution for Women

Microbicides promise to address a central gap in current HIV prevention strategies by offering practical methods women could use to protect themselves from infection during sex with a male partner, such as a monthly vaginal ring or a gel used daily or around the time of sex.

These products are based on the same types of antiretroviral (ARV) drugs that have been used successfully for years to treat HIV/AIDS and to prevent mother-to-child transmission.

Proof-of-Concept for ARV-based Prevention

The past year was a watershed in HIV prevention science: A landmark clinical trial called CAPRISA 004 established "proof-of-concept" for microbicides when it showed that a microbicide gel containing the ARV tenofovir provided protection for women against HIV when used around the time of sex.

Additional milestone studies — iPrEx in 2010 and others since then (HPTN 052, Partners PrEP, TDF2) — have shown that ARVs, when taken orally for either treatment or as pre-exposure prophylaxis (PrEP), can significantly reduce the risk of HIV infection in women and men during sex.

Taken together, these findings represent the power of ARVs to prevent infection and revolutionize the fight against HIV. That promise will be realized as scientists advance recent discoveries and build on the latest research.

Why a monthly microbicide ring?

Bringing the global epidemic to an end will require a toolkit of products that match individual needs and preferences.

Just as we know from the contraceptive field that offering product choices greatly increases the chances that one of them will be used, our best weapon against the HIV epidemic will be a range of unique options — including an affordable, long-acting ARV-based microbicide ring women can use to protect themselves.

In 2010, IPM advanced the dapivirine ring, our highest-priority candidate, in clinical studies. This novel product adapts a medical technology commonly used to deliver hormones to women — a vaginal ring — to the fight against HIV.

The ring offers several benefits:

Long-acting: The ring delivers the ARV drug dapivirine over time to potentially provide protection against HIV infection for a month or longer. Because it may offer sustained, discreet protection and is easy to use, it may help increase a woman's ability to use it consistently to prevent HIV.

Combination ARVs: The ring also has the potential to deliver long-acting combinations of ARV drugs that target HIV at different points in its life cycle, which may increase the level of protection.

Non-systemic protection: Products such as vaginal rings would provide protection where it is needed locally, with low systemic absorption, which could minimize side effects and potentially reduce the risk for resistance.

Contraceptive potential: Rings could combine an ARV with a contraceptive, giving women another option to prevent both HIV and pregnancy.

Affordability: Given its overall low cost and convenience, the microbicide ring may be a very effective and accessible prevention option in the broader HIV prevention toolkit.

The ring's active ingredient: dapivirine

Dapivirine is a potent ARV that acts as a non-nucleoside reverse transcriptase inhibitor, or NNRTI, which works by preventing HIV from replicating itself after the virus enters a healthy cell.

IPM is developing dapivirine for use in a microbicide ring and in other formulations through a royalty-free license granted by Tibotec Pharmaceuticals, a subsidiary of Johnson & Johnson. It has been tested in 26 clinical studies, all showing it to be safe and well-tolerated in HIV-negative women.

Laying the groundwork for the ring

Last year saw the culmination of IPM's clinical and community engagement efforts as we laid the foundation to advance our ring licensure program in 2012 to test the product for efficacy and long-term safety across Africa, in collaboration with the US National Institutes of Health-funded Microbicide Trials Network (MTN).

In 2010, IPM oversaw 10 research studies that engaged researchers, local health workers, communities and study volunteers across IPM research center partner sites throughout Africa and Europe, and in the United States.

Acceptability studies reveal what women want

Because even the safest and most potent microbicides won't work if women don't use them, IPM takes the preferences of women and their male partners into account early in product development by conducting acceptability studies.

Women like the ring: In an acceptability study of the ring among 170 women at four sites in South Africa and Tanzania which concluded in 2010, 96 percent of women said they liked using the ring – and 100 percent of women said they would use it if proved effective against HIV. Many women indicated interest in discreet use, though most preferred partner involvement. In that regard, the male partners interviewed also expressed support for the ring.

Variety of options: An IPM market research study of 526 women in Burkina Faso, Tanzania and Zambia revealed in 2010 that vaginal tablets, films and soft gel capsules are also acceptable product forms to women in Africa. This suggests that providing multiple product options may increase the likelihood microbicides will be used in the real world.

HIV incidence studies yield key data

IPM completed one HIV incidence study and began another to measure the rate of new HIV infections in certain communities. These studies involve thousands of women and help determine feasible locations for future HIV prevention efficacy trials. They also aid local and national authorities in devising HIV prevention strategies.

South Africa: One study, conducted at five sites in South Africa, showed annual incidence rates (the number of new infections) ranging between 4 percent and 11 percent, with the highest rates in KwaZulu-Natal. Prevalence rates (the current percentage of people living with HIV) reach as high as 46 percent in women between 18 and 35, with the highest numbers in the same region. These findings support evidence that South Africa, and the KwaZulu-Natal province specifically, has some of the highest HIV rates worldwide.

Kenya and Zimbabwe: Another study, underway in Suba, Kenya, and Mutare, Zimbabwe, is fully enrolled, with 600 participants. The results, expected in 2012, will provide critically needed public health data on the HIV epidemic in these communities.

Ring safety studies to support licensure program

IPM initiated a Phase I/II safety study of the dapivirine ring in 2010 in Kenya, Malawi, South Africa and Tanzania, with results expected in 2011. This data will further contribute to the product's safety profile as part of the licensure program. This study, which attracted global media attention, tested the first long-acting microbicide in Africa.

Findings reported in 2010 from two additional studies in Belgium show the ring successfully delivered dapivirine over a month or longer, and was safe and well-tolerated in HIV-negative women.



Gel studies progress in US and Africa

IPM also progressed three safety studies of dapivirine gel in 2010 — two in Africa and one in the United States — data from which will also support the ring's safety profile, with results expected in 2011.

"DMA" trial design: Notably, the gel studies in Africa piloted an innovative design called "daily monitored adherence," or DMA, during which study participants had daily contact with researchers either by home visits or returning the gels daily to a local drop-off center. The DMA strategy showed high participant retention, and increased opportunities for counseling and follow-up. These findings may inform future trial designs in the field and help improve our ability to accurately measure adherence.

Male tolerance study: IPM partnered with MTN in 2010 to plan a US-based dapivirine study to assess the safety of dapivirine gel for men when applied once daily. Results are expected in late 2011 and will inform the safety package for the ring licensure program.

Partnering to advance the ring licensure program

Given the ring's promise as a microbicide, MTN and IPM recently expanded their partnership to help advance the ring licensure program. This new collaboration brings complementary scientific strengths and resources to this important effort while creating operational efficiencies. Next steps for the ring program include a pivotal Phase III efficacy study that involves 3,500 healthy, HIV-negative women, which MTN will conduct at its existing sites in southern and eastern Africa, adding its considerable Phase III clinical expertise to the program.

Building on IPM's research through 2010 showing the ring's good safety profile, ease-of-use and long-acting duration, IPM will conduct a Phase II long-term safety study at its research center partner sites in Africa. This trial will be done in parallel with additional studies to examine the ring's safety in specific populations, such as adolescents, as well as any drug interactions. Conducting parallel safety studies may speed future regulatory approval for the ring.

Ring Manufacturing

IPM will provide the tens of thousands of dapivirine rings and placebo rings for the upcoming studies. In 2010, we worked with our manufacturing partner, QPharma (Malmö, Sweden), to keep manufacturing costs low as we added equipment and built capacity to prepare for ring production in 2011.

Pathways to Access

Once the studies are complete, IPM will seek marketing approval for the ring to make it available at the lowest possible cost to women who urgently need new HIV prevention tools.

Preparations for future access continued in 2010, with IPM holding discussions with regulatory agencies in Africa, Europe and the US as well as the World Health Organization. IPM also hosted an annual meeting in 2010 in Cape Town, sponsored by the European Commission, that convened regulatory and ethics representatives from across Africa to build understanding about microbicides and begin resolving potential challenges to access in the future.

PDPs: Agents of Progress

IPM is one of many nonprofit "product development partnerships" that operate by coupling the business approach of the private sector with the public sector's commitment to improving global public health and access to products. PDPs like IPM remain flexible and efficient, while forging partnerships that leverage resources and scientific ingenuity to develop life-saving technologies.

For example, it is hoped that IPM's new partnership with MTN on the dapivirine ring serves as a model for future collaboration in the field.

In addition, IPM's engagement with major pharmaceutical partners in the HIV prevention effort has led to six non-exclusive, royalty-free licensing agreements for IPM to develop, manufacture and distribute eight different ARVs as microbicides in developing countries. These licenses, the core of our public-private partnerships, help ensure that any new product will be affordable and accessible in the settings where they are urgently needed.

Other products — and partnerships — in the pipeline

IPM focused its resources on advancing the ring in 2010, and also worked on other promising candidates in the pipeline as part of innovative collaborations designed to expand HIV prevention options for women in the world's most at-risk regions. Highlights follow:

ARV-contraceptive ring: IPM began work with the Population Council on a prototype microbicide-contraceptive ring that would deliver dapivirine and the hormone levonorgestrel.

Combination ARV ring: IPM partnered with MTN to bring a combination dapivirine-maraviroc monthly ring to clinical trial. This first-ever study of a combination microbicide will start in 2011 in the United States. MTN will conduct the study and IPM, as the product developer, will act as the regulatory sponsor and provide the rings needed for the study.

Long-acting PrEP: IPM continued its collaboration in 2010 with Tibotec Pharmaceuticals on a monthly injectable form of PrEP based on TMC278, or rilpivirine, an ARV recently approved for oral HIV treatment.

Entry inhibitors: IPM has provided four licensed compounds known as entry inhibitors — which prevent HIV from entering healthy cells — to multiple organizations for development as single and combination microbicides under an NIH grant led by Cornell University.

Other dapivirine-based products: IPM provided dapivirine to collaborators across the globe for research on such projects as developing dapivirine-loaded nanoparticles as a microbicide, incorporating dapivirine into a contraceptive cervical cap device, and testing the safety of a dapivirine vaginal film.

Partnering to build capacity

As IPM works to advance HIV prevention products for use in developing countries, it also partners with research centers across Africa to build capacities there, directly benefiting the communities involved and helping to advance the United Nations Millennium Development Goals. In 2010, IPM worked with a variety of research center partners across Africa to build medical research capabilities through trainings and scientific meetings, strengthening infrastructure, and offering employment and professional development opportunities.

Partnering to raise awareness

Raising awareness is crucial to ensuring broad support for microbicides and access to future products. IPM's partnerships with civil society organizations produced a wide range of awareness-raising activities in 2010, including parliamentary briefings in North America and Europe, a program of microbicide advocacy events observing South Africa's National Women's Day, and educational symposia on microbicides and HIV prevention research held at medical conferences in Africa and Europe.

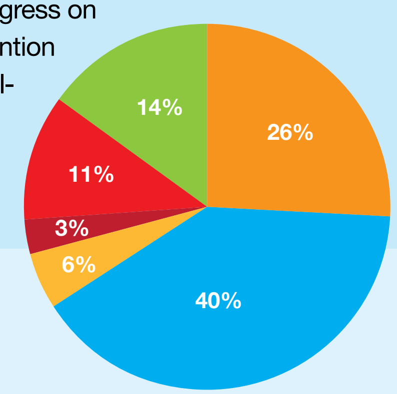
Funding considerations

Between 2002 and the end of 2010, IPM raised or earned through investments $334 million, with an additional $102 million in commitments for 2011-2015. IPM's cash available balance entering 2011 was $65 million. Conducting effective product development and clinical trials in developing countries requires substantial financial investment in building intellectual and physical capacity as well as enrolling thousands of women and following them for several years. This investment is independent of the infrastructure for program and operations support needed to conduct all aspects of product evaluation. Given that ethical review boards require evidence of sufficient funding sources before a trial is approved, IPM needs to ensure that funding to complete our clinical trials will be identified and available when needed.

IPM's expenses from 2002 through 2010 totaled $262 million. A consistent theme embedded in IPM's work plan is to match our expected costs to budget realities. This has required an in-depth assessment of our work model and cost structure as well as prudent pipeline management to allocate sufficient resources to complete our dapivirine licensure program by 2015. IPM has made dramatic shifts in resource allocations due to the fiscal reality created by the global recession. Thus, in expenses, we began to see at the end of 2010 and into 2011 a reduction in preclinical product development, external relations and operations.

With a new resource development strategy, new partnerships, and a committed Board of Directors and management team, IPM is confident that we will continue to advance the most promising microbicide candidates to licensure. For all activities, IPM is committed to serving as a careful steward of public and private donor funds.

IPM looks forward to continuing and increasing funding from current donors as we increase the diversity and number of donors in support of our mission. The result will be steady progress on safe and effective HIV prevention methods for women in developing countries.



Expenses by Department

- Research and Development
- Clinical Program*
- Manufacturing
- Resource Development
- External Relations
- Operations

**Site development expenses: $2.2 million*

Assets

	Dec. 31, 2010	Dec. 31, 2009
Cash and cash equivalents	$29,700,663	$9,838,315
Investments	$45,625,169	$75,751,297
Accounts receivables	$1,452,495	$2,267,701
Prepaid expenses and other assets	$1,069,066	$1,246,187
Prepaid rent and maintenance, net	-	$305,684
Property and equipment, net	$6,021,831	$5,640,501
Total Assets	$83,869,224	$95,049,685

Liabilities and Net Assets

	Dec. 31, 2010	Dec. 31, 2009
Liabilities		
Accounts payable and accrued expenses	$9,274,013	$7,781,435
Grants advances and deferred revenue	$49,770,603	$63,537,516
Total liabilities	$59,044,616	$71,318,951
Net Assets		
Unrestricted	$24,824,608	$11,402,291
Temporarily restricted	-	$12,328,443
Total net assets	$24,824,608	$23,730,734
Total liabilities and net assets	**$83,869,224**	**$95,049,685**

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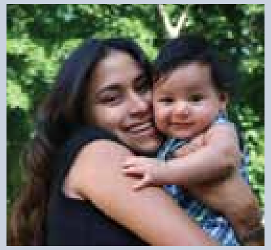

To learn more about how to prevent HIV in women worldwide and help save millions of lives, visit **www.IPMglobal.org**.

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