

ADVANCING HIV-PREVENTION OPTIONS for WOMEN

24 F 897±9 1155 164 ± 192 271± 403

7542

ANNUAL REPORT 2006

TABLE of CONTENTS

1 Letter

- 2 Pressing Needs, Potential Solutions: Microbicides
- **4** Advancing Microbicide Development
- 8 Advancing the Testing of Products for Women
- **14** Advancing Women's Access to Future Microbicides
- **18 Financial Report**
- **19 Funders**
- **19 Board of Directors**
- 20 Scientific Advisory Board Executive Committee
- 21 Senior Management Team
- 22 2006 International Partners
- 24 Scientific Publications and Abstracts Supported by IPM in 2006

20006 was a year of both celebration and circumspection for those of us dedicated to HIV prevention. We welcomed the renewed commitment to prevention expressed by leaders from civil society, the private sector and government at the XVI International AIDS Conference in Toronto. Calls from Toronto for new HIV-prevention tools echoed earlier discussions at the biennial international Microbicides Conference in Cape Town, South Africa – the first microbicides conference held in sub-Saharan Africa, where women are affected by HIV/AIDS more profoundly than anywhere else in the world.



Els Borst-Eilers, M.D., Ph.D. Chair of the Board

Boutlin



Zeda F. Rosenberg, Sc.D. Chief Executive Officer

Bedu F. Rosenberg

Throughout last year, HIV-prevention research made significant strides. Studies in Kenya and Uganda showed that male circumcision can significantly reduce a man's risk of becoming infected with HIV. Prevention research continued on many additional fronts, including advanced clinical trials of microbicides, oral pre-exposure prophylaxis, HIV vaccines, herpes virus suppression and diaphragms.

However, we were also reminded of the challenges in conducting HIV-prevention research. Some microbicide studies closed because the numbers of new HIV infections were too low to show meaningful differences between the placebo and microbicide groups. In addition, in early 2007, trials of the candidate microbicide cellulose sulfate were stopped because of concerns that the product may increase women's risk of acquiring HIV.

The sponsors of the cellulose sulfate trials, CONRAD and Family Health International, acted swiftly to stop the trials and provide preliminary results, reflecting the commitment of the microbicide field to protect women participating in clinical studies. The closure of these trials illustrates how difficult it can be to develop new drugs and prevention technologies for HIV. But it also demonstrates a broad commitment to ensuring that new prevention tools are safe and effective. We saw this clearly in the days and weeks following the announcement, as a number of HIV advocacy groups in South Africa publicly reaffirmed their support for microbicide development.

The International Partnership for Microbicides (IPM) remains focused on expanding the microbicide pipeline and moving promising next-generation microbicide candidates – based on proven antiretroviral strategies – through pre-clinical and clinical development. From our new office in South Africa, IPM is overseeing a series of clinical and epidemiological studies. These latter studies are designed to estimate HIV incidence at potential trial sites, helping to ensure that future efficacy trials can accurately measure the effectiveness of microbicide candidates.

In 2006, IPM continued to build new relationships among funders and industry. Gilead Sciences, Inc., granted IPM and CONRAD royalty-free licences to develop tenofovir as a microbicide. Four pharmaceutical companies have now provided IPM with such rights, demonstrating a significant positive trend within the industry. The governments of Belgium, France and Germany contributed to IPM for the first time, building on new 2006 commitments from existing funders including Canada, the European Commission, Ireland, the Netherlands, Norway, Sweden and the United States.

The past year has seen many challenges, but the need for a microbicide remains as urgent as ever. Almost 18 million women around the world are infected with HIV, and thousands more become infected every day. Prevention is the only way out of this epidemic, and a safe and effective microbicide will be a vital tool. IPM remains committed to making microbicides a reality. ♦

PRESSING NEEDS, POTENTIAL SOLUTIONS: MICROBICIDES

STATUS OF THE HIV/AIDS EPIDEMIC

The devastation is all too familiar: In the last 25 years, HIV/AIDS has claimed the lives of 25 million people worldwide. Approximately 14,000 men, women and children are newly infected with HIV daily. Each case has a profound impact on entire communities and multiple generations. Children are orphaned — more than 15 million children to date, including 12 million in sub-Saharan Africa. Parents die and grandparents must care for young grandchildren. And communities have lost a generation of people who can contribute to their society and economy.

WOMEN ARE AT SPECIAL RISK

In the continuing tragedy of the epidemic, more women than ever before are living with HIV. In the past two years, the number of women living with HIV has increased by one million to 17.7 million. The epidemic is having a devastating impact on national health indicators, especially for women, where in Zimbabwe, for example, life expectancy is only 34 years. Marriage, once thought to be a refuge from the epidemic, is now a significant risk factor in many places. According to the UNFPA, more than 80 percent of new HIV infections in women occur in marriage or a long-term relationship with a primary partner.

In 2006, IPM:

- Expanded the microbicide pipeline and advanced products in pre-clinical development
- Investigated new microbicide formulations, developed trial sites and completed key safety trials
- Integrated the concerns and perspectives of community members into microbicide development
- Increased support for microbicides and prepared for access to products

MICROBICIDES CAN PLAY A ROLE

The International Partnership for Microbicides (IPM) is accelerating the development and availability of safe, effective microbicides — vaginal products that could prevent HIV infection during sexual intercourse. As a female-initiated measure, microbicides could give women a powerful tool for protecting themselves from infection, and thus be an invaluable component of any comprehensive response to the epidemic.

As a female-initiated measure,
 microbicides could give women
 a powerful tool for protecting
 themselves from HIV infection.

IPM IS EXPEDITING DEVELOPMENT

IPM, a non-profit product development partnership, operates at the crossroads of many different organisations and communities interested in developing effective microbicides. Through IPM, scientists, social and economic development organisations, private sector companies, community leaders and women themselves are better able to work towards their common goal of HIV prevention. IPM serves as a resource for this diverse community by performing and funding research and development, helping build clinical site capacity, supporting and conducting clinical trials, sharing knowledge, increasing public support, facilitating critical alliances and ensuring that women in developing countries will have broad access to microbicides once they become available.

ADVANCING MICROBICIDE DEVELOPMENT

EXPANDING THE PIPELINE: NEXT-GENERATION COMPOUNDS

IPM plays an essential role in HIV-prevention research by identifying and developing new microbicide compounds. Promising compounds are developed either by funding other organisations' efforts or through direct work at IPM. By exploring multiple candidates with diverse mechanisms of action, IPM and its research and development (R&D) partners are able to increase the chances of success and expand the number of effective options that will ultimately be available to women.

First-generation microbicide candidates, which are now in efficacy trials, are non-specific inhibitors that seek to block HIV from interacting with its target cells in the vagina. IPM and others are now researching next-generation products that specifically target HIV and the cells it infects. Based on antiretroviral drugs (ARVs) that are already being used successfully to treat AIDS, these next-generation microbicides are being formulated for sustained release either alone or in combination with other microbicides. The ultimate goal of IPM's product development efforts is to create effective anti-HIV microbicides that can be used once a day or even less frequently.

SEEKING INNOVATIVE INTELLECTUAL PROPERTY AGREEMENTS

IPM leverages expertise and resources from the private sector to advance microbicide research by developing royalty-free licensing agreements with pharmaceutical and biotechnology companies. These agreements allow IPM to study and develop promising compounds, alone as well as in combinations, and, if they prove effective, to distribute them in resource-poor settings at low cost.

EXPLORING CONTROLLED-RELEASE FORMULATIONS

IPM is focusing on formulating microbicides in ways that allow for controlled release of the drug over time, so that products can be discreetly applied hours, days or even weeks in advance of intercourse, thus providing protection when unanticipated sex occurs. The vaginal ring, a flexible device made of a polymer, can be inserted and removed manually. New types of rings are being researched, as well as other formulations including once-a-day gels, films and vaginal tablets. ARV compounds, including IPM's candidates, lend themselves to a wide variety of formulations.

PATH TO DIVERSIFICATION

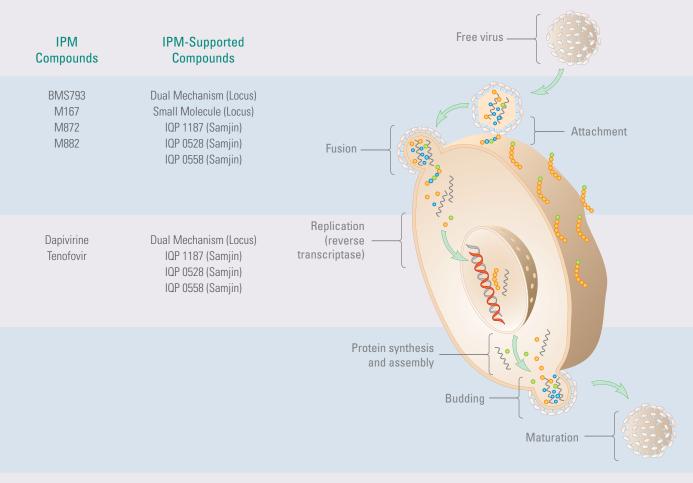
1000):50

0:10

IPM is furthering the development of multiple compounds with different mechanisms of action, both by conducting its own work and by providing funding to other R&D organisations.

00:10

800



By exploring multiple candidates with diverse mechanisms of action, IPM and its partners are able to increase the chances of success and the number of effective options that will ultimately be available to women.

MICROBICIDE DEVELOPMENT PROGRESS THIS YEAR:

• <u>PRIORITISED DEVELOPMENT OF DAPIVIRINE,</u> IPM'S LEAD CANDIDATE

IPM evaluated multiple new gel formulations of its lead candidate microbicide – dapivirine – a non-nucleoside reverse transcriptase inhibitor licensed from Tibotec Pharmaceuticals, Ltd. (a subsidiary of Johnson & Johnson). These new formulations include gels with completely solubilised drug, gels with drug in suspension and saturated solution gels. In addition, IPM is working with Warner Chilcott to explore sustained release delivery in various vaginal ring formulations.

<u>PROGRESSED WITH NEW MERCK AND BMS</u> COMPOUNDS

Merck & Co., Inc., granted IPM a licence in 2005 to develop its compound M167 as a microbicide. M167 is an ARV that blocks a specific cellular receptor (CCR5) so the virus cannot attach to target cells. In 2006, IPM worked with ScinoPharm in Taiwan and China to optimise the synthesis and manufacturing of M167, and has begun formulation and combination virology studies.

IPM has also been granted a licence from Bristol-Myers Squibb to develop its ARV compound BMS793, which blocks HIV infection by attaching to a protein on the viral surface. IPM has arranged for the manufacture of BMS793 with an international group of process development organisations, and is proceeding with analytical and pre-clinical work. IPM also made advancements in optimising the complex and lengthy synthesis process, resulting in substantial yield improvements. This will reduce the number of steps it will take to manufacture the compound, making it easier and potentially less costly to produce.

• OBTAINED RIGHTS TO TENOFOVIR AS A MICROBICIDE

Together with CONRAD of the Eastern Virginia Medical School, IPM has entered into an agreement with Gilead Sciences, Inc., to explore the development of the HIV/AIDS treatment drug tenofovir as an anti-HIV microbicide. Like IPM's agreements with other pharmaceutical companies, this arrangement allows distribution of microbicides on a royalty-free basis in resource-poor countries.

BEGAN STUDIES OF NEW COMBINATION MICROBICIDES

IPM started basic virological assessment of combinations of multiple microbicides. These studies are designed to examine *in vitro* effectiveness and compatibility of dapivirine with other drugs, including M167 and tenofovir.

• PROCEEDED WITH NEW VAGINAL RING DESIGNS

In its efforts to identify the safest, most effective and affordable delivery system options for women, IPM worked with Queen's University Belfast to develop a potentially less expensive matrix ring, and also began studying biodegradable ring technology.

<u>CONTINUED EXPLORING INNOVATIVE FORMULATIONS</u>

In collaboration with New Zealand's Auckland University, IPM developed a prototype slow-release microbicide vaginal tablet. No applicator is required and the tablet can be inserted independently of intercourse. IPM and other development partners also began early work on film formulations, in which the microbicide is affixed to a film and gradually released as the film dissolves.

SCIENTIFIC ADVISORY BOARD

The Scientific Advisory Board (SAB) was created in 2002 to provide ongoing, high-level scientific advice to IPM. IPM's scientific agenda is based on a set of decision-making criteria approved by the SAB in 2003. Due to its size, the full SAB does not meet regularly. IPM staff consults as needed with individual SAB members who have expertise in particular areas of microbicide research and/ or drug development. IPM provides SAB members with updates on its work, including a comprehensive annual report on its science program.

IPM established an SAB Executive Committee to meet annually, beginning in 2006. The Executive Committee is comprised of members from the broader SAB with particular expertise in drug development, ARV science, microbicide development, clinical evaluation, delivery system expertise and other relevant areas. The Executive Committee reviews IPM's scientific agenda and work over the previous year, and advises IPM staff on their research plans and priorities for the coming year.



ADVANCING the TESTING of PRODUCTS FOR WOMEN

MOVING MICROBICIDES TO CLINICAL TRIALS

All microbicide candidates must go through a rigorous programme of laboratory screening and testing to ensure that they have an adequate safety profile prior to being tested in humans. This intensive program of pre-clinical tests can take many months to complete. Once laboratory tests have been performed satisfactorily, candidate microbicides can be advanced through a series of human clinical trials designed to test their safety and efficacy (the ability to prevent HIV infection). To test efficacy, trials must be conducted in locations with high HIV incidence. IPM is identifying and developing up to 20 clinical trial sites.

TESTING FOR SAFETY

Initial safety trials involve small numbers of women under very carefully controlled clinical conditions, such as recent IPM safety studies of dapivirine gel conducted in Belgium and Africa. Larger safety studies, in which the microbicide is administered to a wider range of women over longer periods, can then be conducted in order to gain a better understanding of the safety of the product. Clinical safety trials can take one to two years to complete.

EFFICACY TRIALS: TESTING THE ABILITY TO PREVENT HIV

Only when the safety studies have been completed and efficacy trial sites established can clinical efficacy trials be performed to test the ability of the microbicide to prevent HIV infection. These prevention trials involve thousands of women volunteers and need to be conducted in highincidence locations so that researchers can compare new infection rates among those who use the candidate microbicides with those who use placebos. Efficacy trials can last three years or longer. IPM is preparing for efficacy trials of dapivirine and other future microbicides.

ESTABLISHING GUIDELINES FOR CONDUCTING TRIALS TO THE HIGHEST ETHICAL STANDARDS

IPM is committed to implementing microbicide clinical trials that meet the highest ethical and regulatory standards, sustain broad community support and leave participating communities better off. IPM will work closely with local and national governments and development partners so that support for participants and communities involved in clinical trials can be a shared responsibility.

> 32 48

32

IDENTIFYING TEST SITES FOR EFFICACY TRIALS

Reliable trial data is in everyone's interest - study participants, researchers and women worldwide. In cooperation with national and regional authorities, researchers take a critical step in ensuring quality data when they select trial sites. Efficacy trial sites are established in areas where there are high rates of new HIV infections to ensure that researchers are able to measure the potential impact of a candidate microbicide in reducing the rate of new infections. Background HIV incidence rates traditionally have been measured through cohort studies which involve hundreds or even thousands of people who share certain characteristics or behaviours - such as HIV-negative women who might volunteer to participate in future efficacy trials. These individuals are followed over time to detect new HIV infections. Newer laboratory seroincidence studies have the potential to measure HIV incidence far more quickly across a crosssection of the community. IPM routinely conducts site assessment and evaluation visits, most recently at 12 potential sites in South Africa and 10 in Kenya, Mozambique, Namibia, Nigeria, Rwanda, Tanzania and Zimbabwe.

TESTING PRODUCTS FOR WOMEN PROGRESS THIS YEAR:

<u>COMPLETED GEL SAFETY STUDIES</u>

IPM and its partners completed safety trials of dapivirine in a gel formulation in Rwanda, South Africa and Tanzania. More than 100 women volunteers participated in these safety trials.

• COMPLETED AND PRESENTED RESULTS FROM VAGINAL RING STUDY

Results from the second IPM dapivirine vaginal ring study were presented at the XVI International AIDS Conference in Toronto, Canada, in August 2006. This study showed that the reservoir vaginal ring was safe and well tolerated by women after seven days of use. The study follows an earlier one conducted in 2005 with a similarly configured vaginal ring that was also safe and well tolerated in women after the same time of use. Importantly, both studies demonstrated appropriate distribution of drug in the genital tract.

FINALISED PLANS FOR A SAFETY AND ACCEPTABILITY STUDY OF PLACEBO VAGINAL RINGS

IPM finalised a protocol for a placebo vaginal ring safety and acceptability study to be conducted in Kenya, South Africa and Tanzania. The study, which was initiated in early 2007, will include 200 female participants. This project will generate critical data on the needs and preferences of women and their male partners, in preparation for the eventual introduction of and access to microbicides among user populations. Although vaginal rings have been used for other medical purposes in developed countries, little data exists on women's experiences with vaginal rings in Africa.

<u>COLLABORATED WITH PARTNERS TO PREPARE FOR</u> CLINICAL TRIALS IN AFRICA

In 2006, IPM continued to partner with a number of scientists and researchers based throughout Africa to develop new research sites or improve existing ones in order to conduct clinical studies. Moving forward, IPM will continue to implement cohort and cross-sectional studies to determine incidence rates in preparation for its first efficacy trial. These studies are being conducted in four sites near Nairobi and in Mombasa, Kenya; Nasarawa, Nigeria; Kigali, Rwanda; several locations in South Africa; and Moshi, Tanzania.

For example, IPM partnered with the well-established Kilimanjaro Christian Medical Centre in Moshi, Tanzania, to conduct dapivirine gel and vaginal ring safety and acceptability studies. As part of the collaboration, IPM constructed a new clinic and supplied it with equipment necessary to carry out clinical trials. In addition to infrastructure development, IPM provided staff capacity development through Good Clinical Practices (GCP) and colposcopy training.

ESTABLISHED A SOUTH AFRICAN OFFICE TO LEAD CLINICAL TRIALS

IPM opened a new office near Cape Town, South Africa, increasing internal capacity to develop and support clinical research teams.

LEARNING WHAT WORKS FOR WOMEN

For a microbicide product to be effective, it has to be acceptable to the women who will use it. But what characteristics do women prefer? In 2006, IPM teamed with three consumer market research organisations (based in the United States, South Africa and Kenya) to find out. The resulting Product Attribute Study involved nearly 550 women participants in Kenya, South Africa and Zambia. Three different gel products were used, all water-based placebos with no drug involved, but each with a different texture and consistency, or viscosity. Participants were asked:

- Which gel do you prefer?
- How do the gels compare in terms of key characteristics?
- What do you like and dislike about the gels?
- How do your male partners react to the gels?

Study participants also were asked whether they would recommend the product to others, and whether they had suggestions for product improvements. The mid-range viscosity product was generally the highest rated, receiving superior scores for its applicator, consistency, impact on sexual pleasure, colour and other characteristics. A majority of women in all three countries said they would "definitely use" any one of the gels – especially if it was effective against HIV.



IPM is committed to implementing microbicide clinical trials that meet the highest ethical and regulatory standards, sustain broad community support and leave participating communities better off.

CLINICAL TRIALS

TRIAL	TRIAL NAME AND LOCATION	n*	STATUS
IPM001	Dapivirine vaginal ring safety, Belgium	12	Completed, 2005
IPM003	Dapivirine gel safety, Rwanda, South Africa, Tanzania	112	Completed, 2006
IPM004	Dapivirine gel PK, South Africa	18	Completed, 2006
IPM005B	Dapivirine gel expanded safety, Belgium	36	Completed, 2006
IPM007	Seroconverter protocol, various sites	N/A	Planned, 2008
IPM008	Dapivirine vaginal ring safety, Belgium	13	Completed, 2005
IPM009	Dapivirine gel efficacy, various sites	TBD	Planned, 2008
IPM010	Dapivirine gel male tolerance, Belgium	36	Planned
IPM011	Vaginal ring acceptability, Kenya, South Africa, Tanzania	200	Ongoing
IPM012	Dapivirine gel PK, TBD	TBD	Q3, 2007
IPM013	Dapivirine vaginal ring PK, Belgium	60	Q3, 2007
IPM014	Dapivirine gel safety, South Africa, TBD	TBD	Q4, 2007
IPM015	Dapivirine vaginal ring safety, South Africa, Tanzania	200	Q3, 2007
IPM016	Small volume applicator PK, TBD	TBD	Q3, 2007
IPM017	Dapivirine vaginal ring safety, Belgium	TBD	Q3, 2007
IPM018	Vaginal ring feasibility, Belgium	24	Ongoing

* Estimated number of volunteers in study

PROTECTING PARTICIPANTS' RIGHTS AND HEALTH GUIDELINES FOR THE CONDUCT OF IPM CLINICAL TRIALS

The HIV/AIDS epidemic has its greatest impact in communities where access to health care is limited and social inequity is a significant aspect of the lives of women. These conditions create special challenges for ensuring that the rights, autonomy and welfare of clinical trial participants are protected. It is critical that these challenges be openly and effectively addressed. Only by testing microbicides in the countries most profoundly affected by HIV/AIDS can researchers measure the safety, effectiveness and acceptability of these products among the women in most urgent need of new, female-initiated HIV-prevention tools.

In 2006, IPM established guidelines for the conduct of its clinical trials, understanding that some aspects of ethical clinical practice resist standardisation across countries and trial sites and will need to be adapted to meet unique local circumstances. *Guidelines for the Conduct of IPM Clinical Trials* specifies principles for:

- Community engagement from the earliest stages of trial development onward
- Informed consent to ensure participants' consent is freely given and based on a clear understanding of the trial's risks and potential benefits
- Risk reduction counselling and provision of male and female condoms
- Referral of individuals who test HIV-positive at screening, prior to enrolment, to expedite comprehensive care
- Screening and treatment of common, curable sexually transmitted infections for trial participants
- ARV treatment and care for participants who become infected with HIV during the trial
- Prophylactic care and treatment for study staff
- Treatment and compensation for physical harm incurred during the trial
- Post-trial access to the product studied, when demonstrated to be safe and effective, and licensed for domestic use
- Measuring potential social harms to women participating in trials and addressing these concerns where possible

ADVANCING WOMEN'S ACCESS to FUTURE MICROBICIDES

ENSURING ACCESS IS A CORNERSTONE OF THE DEVELOPMENT PROCESS

Even before the earliest development of a candidate begins, IPM considers numerous factors to ensure that finished products will get quickly into the hands of the women who need them most. How expensive will a potential compound be to research and manufacture? Can royalty-free licences be obtained? What kinds of distribution channels can be put in place to cost-effectively bring the product to market? IPM is active on all these fronts in order to eliminate possible delays and roadblocks in anticipation of product availability. It identifies and prioritises drug candidates on the basis of multiple factors, including ultimate affordability and availability of manufacturing capacity, to help ensure that any future products are accessible to women most at need.

ADDRESSING REGULATORY APPROVAL

Developing regulatory guidelines for a category of drugs that does not yet exist is a daunting problem for any country. For resource-poor nations, where HIV is most prevalent, it is particularly difficult. IPM has teamed with international organisations to help strengthen the regulatory capacity of developing countries. It also is helping to create stronger links between national regulatory authorities worldwide for possible joint reviews of products as they emerge, and working with the United States Food and Drug Administration and the European Medicines Evaluation Agency to facilitate future approvals.

12

33

38

-7.93

+3.03

+0.34

+0.00

-3.23

+3.98

-3.

21

00

23.03

238.27

928.10

38.23

46.02

47.38

74.32

4.23



INCREASING GLOBAL AWARENESS ... AND LOCAL ACCEPTANCE

Each year, microbicides gain increased prominence as a potentially powerful tool in the fight against HIV. IPM helps keep leaders in the fight against HIV/AIDS current with progress in microbicide development. IPM also supports advocacy groups and brings microbicides to the attention of the media and the public.

nternati

XVI INTERNATIONAL AIDS CONFERENCE

Presentations at the XVI International AIDS Conference held in Toronto, Canada, in August 2006 emphasised that prevention efforts must be scaled up if the world is to succeed in sustaining treatment. The needs of women in the face of the AIDS epidemic and the potential role of microbicides to prevent HIV were highlighted throughout the conference. Bill Gates, in speaking about microbicides as being an important breakthrough, said: "No matter where a woman lives, who she is, or what she does, a woman should never need her partner's permission to save her life."

WOMEN'S ACCESS TO FUTURE MICROBICIDES PROGRESS THIS YEAR:

• <u>SERVED AS SECRETARIAT FOR WOMEN'S</u> LEADERSHIP NETWORK FOR MICROBICIDES

In 2006, one of the world's most recognised and respected women, Graça Machel, began the Women's Leadership Network for Microbicide Development. Members include Melinda Gates, Hilde Johnson, Wangari Maathai, Gertrude Mongella, Joy Phumaphi, Mary Robinson, Zeda Rosenberg and Mirta Roses Periago. IPM helped arrange an initial gathering of grassroots microbicide advocates with Graça Machel during Microbicides 2006 in Cape Town, South Africa, to discuss how the high-level network members could best generate awareness and political support for microbicide development.

HOSTED MICROBICIDE BRIEFING IN KENYA

IPM updated approximately 50 representatives from donor, multilateral and international organisations on microbicide development in May 2006. Speakers at the Nairobi, Kenya, event included the Honourable Charity Ngilu, Kenyan Minister of Health, and Ambassador Stephen Lewis, UN Special Envoy for HIV/AIDS in Africa.

INITIATED INTERNATIONAL WORKING GROUP OF WOMEN LIVING WITH HIV AND MICROBICIDE RESEARCHERS

IPM facilitated a six-month series of issue-based dialogues among HIV-positive women, advocates for microbicides, microbicide scientists and product developers. These discussions were an opportunity to share concerns and discuss research issues of importance to HIV-positive women.

> "HIV/AIDS policies and resource expenditure need to reflect the reality of the pandemic's spread and impact on women and girls. We need increased investment to develop effective microbicides as a crucial part of HIV-prevention programmes."

> > — GRAÇA MACHEL



IPM identifies and prioritises drug candidates on the basis of multiple factors, including ultimate affordability and availability of manufacturing capacity, to help ensure that any future products are accessible to women most at need.

INCREASED FINANCIAL SUPPORT FROM FUNDERS

Belgium, Canada, Denmark, the European Commission, France, Germany, Ireland, Norway, the Netherlands, Sweden, the United States and the United Kingdom initiated, renewed or increased their financial commitment to microbicide development and clinical trials. IPM's other funders include the Bill & Melinda Gates Foundation, the Rockefeller Foundation, UNFPA and the World Bank.

• REVIEWED FOUR COUNTRIES FOR READINESS

IPM commissioned readiness studies for India, Nigeria, Rwanda and Tanzania. These profiles surveyed each nation's potential readiness for microbicide development and introduction in terms of its policies, health system, manufacturing, and economic and social infrastructure.

FROM RESEARCH TO REALITY: CLEARING THE WAY FOR PRODUCT INTRODUCTION *IPM 2006 ACCESS FORUM*

Past experience indicates that countries in the developing world lack sufficient infrastructure and financing to connect citizens with important product innovations. IPM is committed to preparing markets in advance of microbicide product availability, so women most at risk will have access to microbicides as quickly as possible.

Towards this end, IPM hosted a one-day forum, "Understanding Microbicide Introduction in Africa and India" in Toronto, Canada, during the XVI International AIDS Conference. Leading experts in microbicides, HIV/AIDS and reproductive health presented their previous experience in introducing new products in India, Nigeria, Rwanda, South Africa, Tanzania and Zambia.

FINANCIAL REPORT

Consolidated Balance Sheet, Year Ended December 31, 2006. Amounts shown in US dollars.

ASSETS

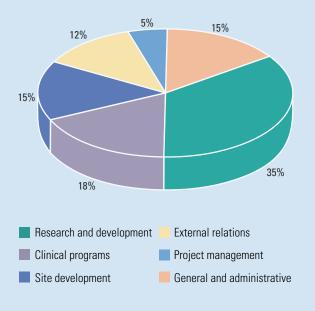
Cash and cash equivalents \$81,6	897,654
Accounts receivable \$	812,017
Prepaid expenses and other assets \$4	420,472
Prepaid rent and maintenance, net \$	522,461
Property and equipment, net \$1,	697,498
Total assets: \$85,	350,102

LIABILITIES AND NET ASSETS

Liabilities

Accounts payable and accrued expenses	\$3,559,039
Deferred revenue	\$68,814,364
	\$72,373,403
Net assets	
Unrestricted	\$1,116,166
Temporarily restricted	\$11,860,533
	\$12,976,699
Total liabilities and net assets:	\$85,350,102

EXPENSES BY DEPARTMENT*



* Year Ended December 31, 2006. Total expenses \$25.5 million.

FUNDING CONSIDERATIONS

Conducting clinical trials in developing countries requires substantial investments. Since 2002, IPM has raised a total of \$217 million (funds received plus future commitments to be received), with almost \$84 million of that funding available as of December 31, 2006. IPM has undertaken resource development efforts understanding that funding commitments to complete efficacy trials should be in hand before the trials can commence, as ethical review boards generally will not approve conducting a trial without sufficient funds required for completion. An efficacy trial necessary to support licensure for a single microbicide product requires enlisting thousands of women and following them for an extended period of time so researchers can compare infection rates among women who use a candidate microbicide with those using a placebo. A single efficacy trial can cost as much as \$70-\$120 million. Multiple efficacy trials for microbicide products will be needed, thereby making IPM's future financial need significant.

FUNDERS

Bill & Melinda Gates Foundation

Belgian Development Cooperation

Canadian International Development Agency

Denmark Ministry of Foreign Affairs

European Commission

France Ministry of Foreign Affairs

Germany Federal Ministry for Economic Cooperation and Development

Irish Aid, Department of Foreign Affairs

The Netherlands Ministry of Foreign Affairs

Norwegian Royal Ministry of Foreign Affairs

The Rockefeller Foundation

Sweden Ministry for Foreign Affairs

Sweden, the Department for Research Cooperation

United Kingdom, Department for International Development

United Nations Population Fund

United States Agency for International Development

The World Bank

BOARD OF DIRECTORS

Dr. Els Borst-Eilers (Chair) Former Minister of Health, Welfare and Sport and Deputy Prime Minister, The Netherlands

Dr. Alex Coutinho (Vice-Chair)

Executive Director - The AIDS Support Organisation, Uganda

Mr. Rajat Gupta Senior Partner Worldwide - McKinsey & Company, USA

Dr. Seth Harrison Managing General Partner - Apple Tree Partners, USA

Dr. David Kessler Dean - University of California, San Francisco School of Medicine, USA

Ms. Anjali Nayyar Vice-President of Country and Regional Programmes International AIDS Vaccine Initiative, USA

Dr. Albert Profy

Vice-President, Preclinical Development - Indevus Pharmaceuticals, Inc., USA

Dr. Zeda F. Rosenberg Chief Executive Officer - IPM, USA

Dr. Hélène Rossert-Blavier Director General - AIDES, France

Ms. Anandi Yuvaraj Program Manager for HIV and Sexual Reproductive Health - PATH, India

SCIENTIFIC ADVISORY BOARD EXECUTIVE COMMITTEE

Dr. Robin Shattock, Chair St. George's, University of London, United Kingdom

Dr. Richard Bax Bax Consulting, United Kingdom

Mr. Ben Cheng The George Washington University, USA

Dr. Gustavo F. Doncel CONRAD of the Eastern Virginia Medical School, USA

Dr. Sharon L. Hillier University of Pittsburgh, USA

Dr. Ruth Merkatz Population Council Center for Biomedical Research, USA

Dr. Thomas Moench ReProtect, Inc., USA

Dr. Lynn Paxton Centers for Disease Control and Prevention, USA

Dr. Gita Ramjee Medical Research Council, South Africa

Dr. Martin Springer Merck & Co., Inc., (Retired), USA

Dr. Jens Van Roey Médecins Sans Frontières, Switzerland

SENIOR MANAGEMENT TEAM

Dr. Zeda F. Rosenberg Chief Executive Officer

Mr. Alex K. Brown Chief Financial Officer

Dr. Annaléne Nel Chief Medical Officer

Ms. Pamela Norick Chief of External Relations

Ms. Esther Benjamin Executive Director for Resource Development

Ms. Karen Douville Executive Director for Project Management

Dr. Jennifer Nadeau Executive Director for Communications

Dr. Joseph Romano Executive Director for Research and Development

Mr. Saul Walker Executive Director for Global Public Policy

2006 INTERNATIONAL PARTNERS

Advanced Biosciences Laboratory, USA AIDES, France **AIDS Fondet**, Denmark **Alliance for Microbicide Development, USA Analytical Solutions, USA BePart Community Research Solutions; Drakenstein** Hospice, South Africa **Bristol-Myers Squibb, USA CBR Institute for Biomedical Research**, USA **Centers for Disease Control and Prevention, USA Clinical Research Centres SA**, South Africa **Clinton Global Initiative, USA CONRAD**, USA **Cornell University, USA Deseret International Foundation**, Namibia **Desmond Tutu HIV Foundation, South Africa** Equilibres & Populations, France European Microbicide Project, United Kingdom

Family Health International, USA German Foundation for World Population (DSW), Germany **Gilead Sciences, Inc., USA Global Campaign for Microbicides**, USA Harvard School of Public Health, USA Health and Development Africa, South Africa **Imquest Biosciences**, USA Innovative Biotech Ltd., Nigeria Institute of Tropical Medicine, Belgium Instituto Nacional de Saude (Mozambican National Institute of Health), Mozambique Interagency Coalition on AIDS and Development, Canada **International Antiviral Therapy Evaluation Center,** The Netherlands International Centre for Reproductive Health, Kenya Johns Hopkins University, USA J-Star Research, USA Kenya Medical Research Institute, Kenya Kilimanjaro Christian Medical Centre, Tanzania



Locus Pharmaceuticals, USA London School of Hygiene and Tropical Medicine, United Kingdom Madibeng Centre for Research, South Africa McGill University, Canada Medical Research Council, South Africa Medical Research Council, Uganda Merck & Co., Inc., USA Microbicide Development Programme, United Kingdom Mintaka Foundation, Switzerland **Mount Sinai School of Medicine, USA** National AIDS Trust, United Kingdom National Institute for Research in Reproductive Health, India National Institute of Allergy and Infectious Diseases, USA Novovax, USA Paragon Medsystems, USA Particle Sciences, USA **Population Council, USA** Projet Ubuzima, Rwanda Queen's University Belfast, United Kingdom **Regulatory Compliance Initiatives, USA** Research IQ, South Africa **Research Triangle Institute, USA** ScinoPharm, Taiwan

SGS Life Science Services, Belgium Society for Women and AIDS in Africa, Namibia Statistics Collaborative, USA St. George's, University of London, United Kingdom **Tibotec Pharmaceuticals, Ltd. (a subsidiary of Johnson** & Johnson), Belgium UNAIDS, Global Coalition on Women and AIDS, Switzerland University of Auckland, New Zealand **University of California, Los Angeles, USA** University of Ghent, Belgium University of the Free State, South Africa University of the Witwatersrand, Reproductive Health and HIV Research Unit, South Africa **University of Utah, USA** University of Zimbabwe, Zimbabwe Urban Research and Development Centre for Africa, Kenya Voxiva, USA Warner Chilcott, United Kingdom World Health Organization, Switzerland Xigo Nanotools, USA

Coplan, P., I. Malonza, M. Mitchnick and Z. Rosenberg. 2006. Methods to estimate HIV-1 incidence among study populations prior to microbicide efficacy trials. Poster presentation at the Microbicides 2006 Conference, Cape Town, South Africa.

Douville, K., J. Romano and S. Race. 2006. Challenges in microbicide production during the drug development lifecycle. Poster presentation at the Microbicides 2006 Conference, Cape Town, South Africa.

Douville, K., M. Mitchnick, L. Baker and D. Studebaker. 2006. Modeling phase III microbicide clinical trial costs. Poster presentation at the XVI International AIDS Conference, Toronto, Canada.

Fairhurst, D., D. Perumal, R.J. Shattock, T. Cosgrove,
E. Hasan, J-L. Brousseau, J. Romano and M. Mitchnick.
2006. Variability in the structure-function characteristics of poly(styrene-sulphonate) macromolecules impinges the efficacy of *in-vitro* HIV-1 inhibition.
Poster presentation at the Microbicides 2006
Conference, Cape Town, South Africa.

Fairhurst, D., R. Rowell, S. Key, I. Monahan, D. Stieh, F. McNeil-Watson, A. Morfesis, M. Mitchnick and R.J. Shattock. 2006. Electrophoretic fingerprinting of HIV-1 cell interaction: A novel tool for development of charge-based strategies. Poster presentation at the Microbicides 2006 Conference, Cape Town, South Africa. Johnson, S., L. Connell, R. Govender, D. Nowitz, V. Tallis and E. McGrory. 2006. Getting a microbicide into the field in South Africa: What would it take? Oral presentation at the Microbicides 2006 Conference, Cape Town, South Africa.

Kiser, P., C. Lee, H. Aliyar and K. Gupta. 2006. Novel delivery systems for microbicides: Seven triggered release and *in situ* gelling polymer carriers. Oral presentation at the Microbicides 2006 Conference, Cape Town, South Africa.

Lee, C., H. Aliyar, K. Gupta and P. Kiser. 2006. Triggering microbicide release with enzymes in semen. Poster presentation at the Microbicides 2006 Conference, Cape Town, South Africa.

Martinez, J., P. Coplan and M.A. Wainberg. 2006. Is HIV drug resistance a limiting factor in the development of anti-HIV NNRTI and NRTI-based vaginal microbicide strategies? *Antiviral Research* 71 (Sept.): 343-350.

Methot M., P. Harrison, L. Heise, V. Raghavendran, Z. Rosenberg, B. Shearer and J. Baum. 2006. An intense global advocacy campaign to seek endorsement from G8 countries. Oral presentation at the Microbicides 2006 Conference, Cape Town, South Africa.

Nuttall, J., D. Thake, M. Lewis, J. Ferkany, J. Romano and M. Mitchnick. 2006. Concentrations of dapivirine in the rhesus macaque and rabbit following once-daily intravaginal administration of a gel formulation of [14c] dapivirine for seven days. Poster presentation at the Microbicides 2006 Conference, Cape Town, South Africa. Orner, P., J. Harries, D. Cooper, J. Moodley, M. Hoffman, J. Becker, E. McGrory, R. Dabash and H. Bracken. 2006. Challenges to microbicide introduction in South Africa. *Social Science & Medicine* 63 (Aug.): 968-978.

Perumal, D., R.J. Shattock, G. Gwozdz, L. Goldman, P. Mesquita, G. Wallace, J. Romano, D. Fairhurst and M. Mitchnick. 2006. Novel TMC120 gel formulation demonstrates potent anti-HIV-1 activity in cellular and human cervical tissue models. Oral presentation at the Microbicides 2006 Conference, Cape Town, South Africa.

Race, S., K. Barnhart, D. Fairhurst, K. Chubb, J. Romano and D. Katz. 2006. The rheological properties of vaginal gels critically affect spreading characteristics within the vagina. Poster presentation at the Microbicides 2006 Conference, Cape Town, South Africa.

Romano, J. 2006. Characterization of *in vitro* release and *in vivo* delivery of TMC120 with an intravaginal ring: Implications for microbicide delivery. Oral presentation at the XVI International AIDS Conference, Toronto, Canada.

Romano, J. 2006. Multiple dosage forms of the NNRTI microbicide dapivirine: Product development and evaluation. Oral presentation at the Institute of Human Virology 2006 International Meeting, Baltimore, USA. Rosenberg, Z. 2006. Status of microbicide product development to prevent HIV transmission. Panel presentation at the HIV DART 2006 Conference, Cancun, Mexico.

Van de Wijgert, J., J. Vyankandondera, P. Coplan,
N. Veldhuijzen, M-M. Umulisa, E. Geubbels, C. Tuijn,
K. Ford, J. Ntirushwa and E. Kayirangwa. 2006.
Establishing a new microbicide trial site in Rwanda.
Poster presentation at the Microbicides 2006
Conference, Cape Town, South Africa.

Veldhuijzen, N., J. Nyinawabega, M. Umulisa, B. Kankindi, E. Geubbels, P. Basinga, J. Vyankandondera and J. van de Wijgert. 2006. Preparing for microbicide trials in Rwanda: Focus group discussions with Rwandan women and men. *Culture, Health & Sexuality* 8 (Sept.): 395-406.

Walker, S., T. Mattholie, S. West and V. Raghavendran. 2006. A framework for future microbicide access in developing countries. Poster presentation at the XVI International AIDS Conference, Toronto, Canada.

Woolfson, A.D., R.K. Malcolm, R.J. Morrow, C.F. Toner and S.D. McCullagh. 2006. Intravaginal ring delivery of the reverse transcriptase inhibitor TMC120 as an HIV microbicide. *International Journal of Pharmaceutics* 325 (15 Nov.): 82-89.

www.ipm-microbicides.org

HEADQUARTERS

8401 Colesville Road, Suite 200 Silver Spring, MD 20910 USA TEL: +1-301-608-2221 FAX: +1-301-608-2241

IPM – CTM FACILITY

3894 Courtney Street, Suite 170 Bethlehem, PA 18017 USA TEL: +1-484-893-1050 FAX: +1-484-893-1057

IPM BELGIUM (an independent affiliate)

Rue du Trône, 98, 7th floor 1050 Brussels Belgium TEL: +32(0)2-507-1224 FAX: +32(0)2-507-1222

IPM SOUTH AFRICA

Zomerlust Estate PricewaterhouseCoopers Building Bergriver Boulevard, Paarl, 7646 P.O. Box 3460, Paarl, 7620 South Africa TEL: +27-21-860-2300 FAX: +27-21-860-2308/9