2004

Annual Report

VACCINE AND INFECTIOUS DISEASE ORGANIZATION

PROTECTING THE *health* OF CANADIANS

Annual Report

Milestones 2003-2004

2003-10-07:
VIDO director receives Saskatchewan Order of Merit

2003-10-16:
U of S and partners celebrate grand opening of VIDO expansion

2004-01-20:
Funding announced for VIDO research equipment

2004-03-08:
VIDO awarded $19.2 million for International Vaccine Centre

2004-03-25:
VIDO director honoured with prestigious Anne and Neil McArthur Research Award

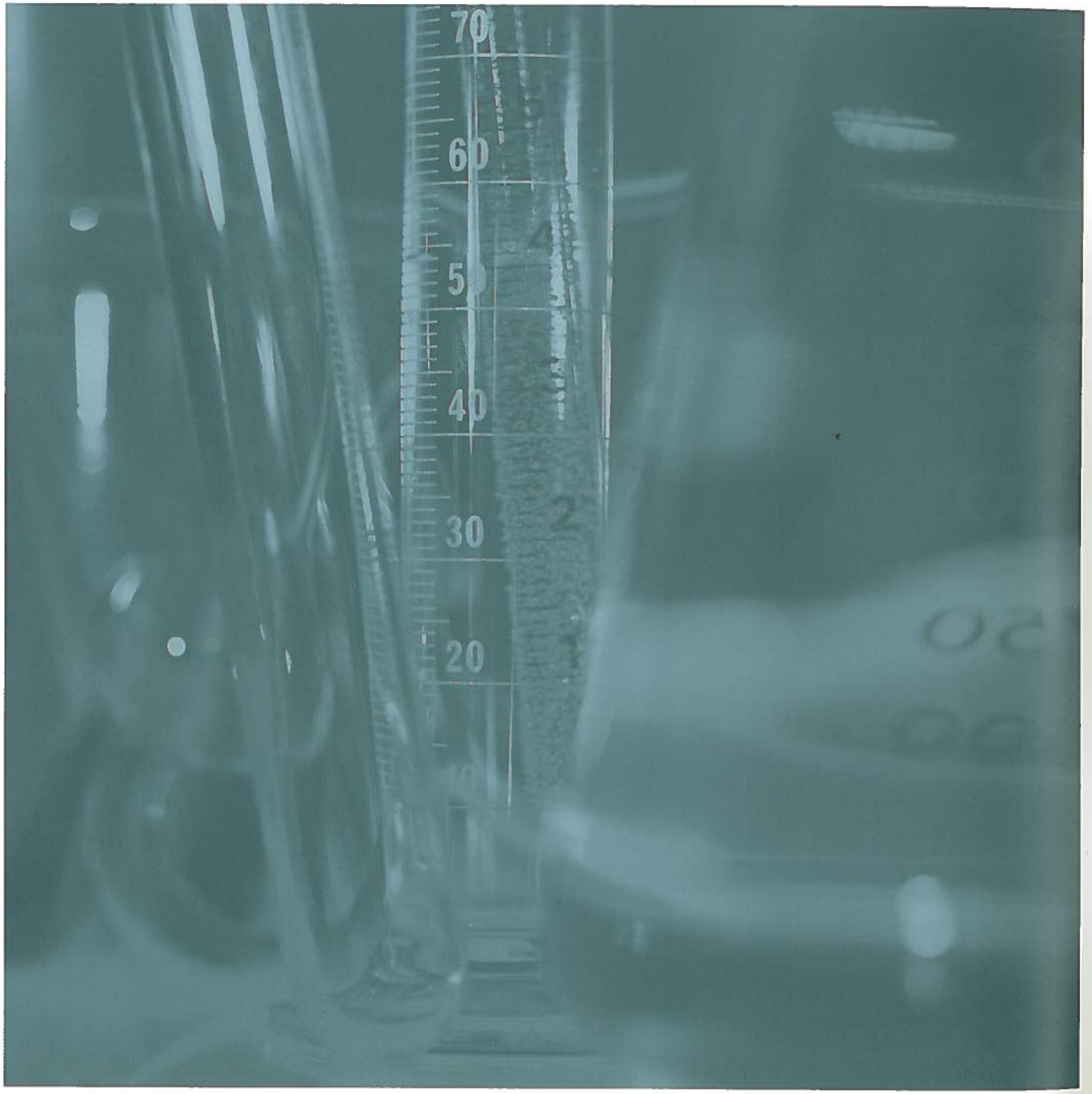
2004-05-06:
SARS vaccine candidates fast-tracked to testing

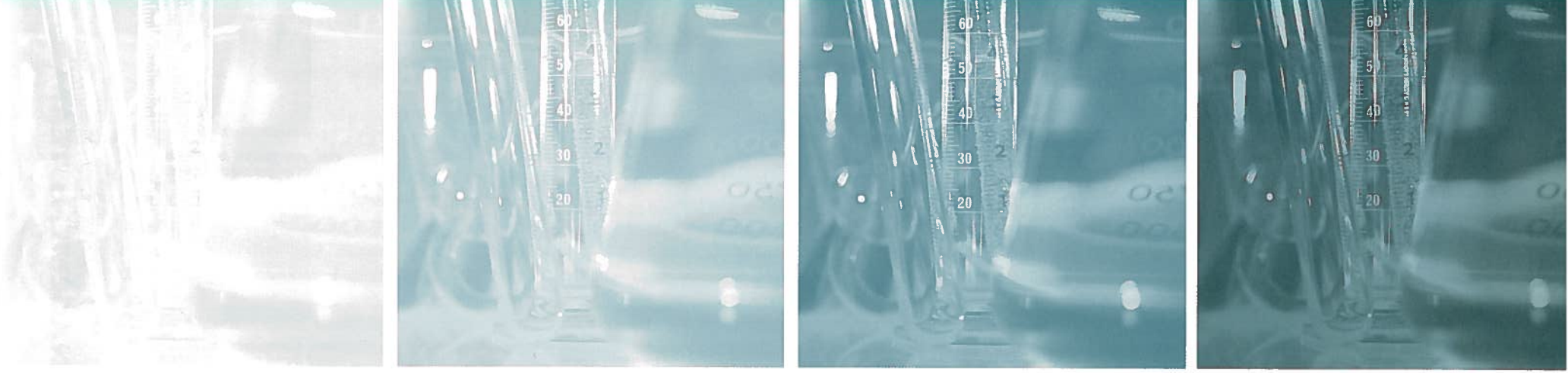
2004-05-12:
VIDO/Bioniche E. coli O157:H7 vaccine shows further promise

2004-05-31:
VIDO to headquarter $61.8 million International Vaccine Centre

2004-08-26:
VIDO receives $9 million in core funding from province

Cover photo credits:
Debra Marshall, Jeramey Jannene, Carlos Paes





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Vision Statement Protecting the world from infectious diseases. // **Mission Statement** To be a pre-eminent research institute investigating the pathogenesis of infectious diseases and the development of effective therapeutic and prophylactic methods to control infectious diseases of humans and animals.

DR. LORNE A. BABIUK
DIRECTOR

A NEW VIDO

MESSAGE FROM THE DIRECTOR

In our 2003 Annual Report, we described the "new VIDO": we had completed our expansion, and this expansion is now helping us to link human and animal health research. This linkage ensures our work will benefit society and address many of the emerging disease issues of the day. Indeed, our mission statement

> *"To be a pre-eminent research institute investigating the pathogenesis of infectious diseases and the development of effective therapeutic and prophylactic methods to control infectious diseases of humans and animals"*

has evolved to acknowledge this linkage. This year we focus on implementing this mission and our vision – to protect the world from infectious diseases.

A HEALTHIER SOCIETY THROUGH COLLABORATION

In order to achieve our mission, we have continued to embrace collaborations with researchers and companies in Canada and around the world. These collaborations are not only helping us move our research more rapidly into the commercial arena, but also assisting us in developing novel approaches to disease prevention. They provide new ideas, facilitate access to expensive equipment and reagents, and create opportunities to recruit key researchers. VIDO is also continuing to develop firm linkages with researchers in Manitoba, Alberta and British Columbia to ensure Western Canada's strength in infectious disease research.

WORKING TO ADDRESS EMERGING DISEASES

This past year has seen continued turmoil in the cattle industry due to bovine spongiform encephalitis (BSE), or mad cow disease, and concerns about pandemic flu (avian influenza), as well as other emerging or re-emerging diseases. All of these infectious agents justify the headlines in local newspapers, since they not only have the potential to cause significant mortality, but also have a dramatic economic impact.

VIDO SENIOR MANAGEMENT TEAM

DR. ANDREW POTTER
ASSOCIATE DIRECTOR (RESEARCH)

DR. LOUIS DESAUTELS
CHIEF OPERATING OFFICER

CAROL MARTEL, C.M.A.
MANAGER – FINANCIAL OPERATIONS

JOYCE SANDER, C.I.M., P.MGR.
MANAGER – HUMAN RESOURCES AND INTELLECTUAL PROPERTY

PHOTOS: STUART KASDORF, CARLOS PAES, DEBRA MARSHALL

Many of the diseases that we at VIDO are studying are direct threats to public health. Transmission from animals to humans poses a public health concern in the case of, for example, SARS, influenza, *E. coli* O157:H7, Salmonella and Campylobacter. In order to integrate VIDO into Canada's public health co-ordination, surveillance and response systems, we are strengthening ties with the new Canadian Public Health Agency and the federal National Microbiology Laboratory in Winnipeg, Man. to become a hub of infectious disease expertise in Canada.

Furthermore, VIDO's participation in the International Centre for Infectious Diseases in Winnipeg, with its mandate to address the impacts of infectious diseases world-wide through preventative medicine and responses to emerging disease threats, is key to our collective success. To ensure that VIDO is a worthy partner in these global activities, we are committed to innovative approaches to research and more importantly, to the commercialization of the technologies and vaccines emerging from our collective research efforts.

THE INTERNATIONAL VACCINE CENTRE (INTERVAC)

To add a further resource to Canada's pre-eminent infectious disease research programs, VIDO applied to the Canada Foundation for Innovation (CFI) for funding to build a Level III biocontainment facility. We are delighted that the International Review Committee fully endorsed the proposal and that the CFI supported our request.

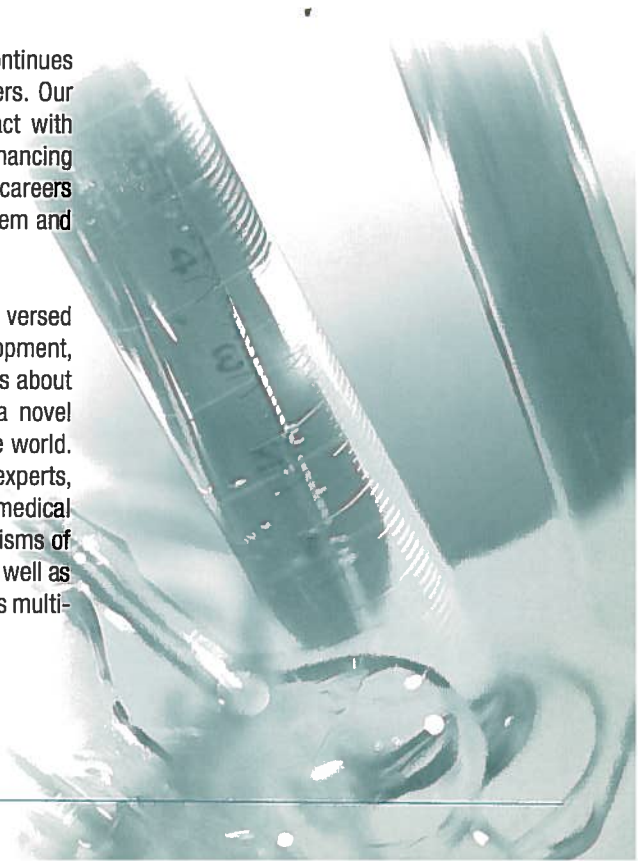
InterVac, which we hope will be functional by 2009, will be extremely valuable, by allowing us to work with many of the emerging pathogens that we cannot currently study due to the fact that VIDO is rated a Level II containment facility. It will be unique in Canada, allowing researchers from across the country to interact with international colleagues in studying the pathogenesis (disease processes) of many infectious agents in a variety of animal models. Furthermore, this facility will allow us to expand our "systems biology" approach (the concurrent investigation of interacting components of a living organism) to infectious diseases by linking our laboratory studies investigating the microbe with host responses to infection. Thus, the study of genomics, proteomics, and of the impacts of specific interactions on the host and the pathogen, will assist us in developing novel approaches to control disease. We are in the final stages of designing InterVac, which will be built to exceed regulatory standards, and assembling the additional funding required.

Dr. Lorne Babiuk speaks with The Honourable Dr. Rey D. Pagtakhan, Minister of Western Economic Diversification (2004)

AN ENDURING COMMITMENT TO TRAINING

In addition to addressing current needs for vaccines, VIDO continues to be committed to training the next generation of researchers. Our commitment to collaboration ensures our trainees interact with researchers and companies around the world, thereby enhancing their employment opportunities. As they establish their careers in these new locations, we continue to collaborate with them and further expand our international network.

In recognition of the need for trainees that are not only well versed in the laboratory aspects of research and vaccine development, but also in the importance of addressing societal concerns about technologies we are developing, we are spearheading a novel "vaccinology graduate program" that will be unique in the world. Sociologists, engineers, businessmen, communications experts, ethicists, pharmacists and professionals with traditional medical and veterinary research expertise will investigate mechanisms of addressing the various societal impacts of our research, as well as the conventional basic biology of vaccine development. This multi-



disciplinary approach to addressing research questions will be key to ensuring all aspects of vaccine development are explored, and the research we do is directly applicable to societal needs.

A CHANGING ORGANIZATION: EVALUATING OUR GOVERNANCE MODEL

In keeping with our continued commitment to excellence through the most efficient performance possible, VIDO is re-examining its governance model. This model has served us extremely well over the past decades, yet it is extremely important to ensure that the model is still the most appropriate for our evolving organization. A team of external experts is currently examining how VIDO is governed and, we hope, will recommend in the near future how our governance can be improved if need be to capitalize on current opportunities and meet our growing organizational needs.

The current Board of Directors continues to bring tremendous insights to VIDO's operations on a volunteer basis. We thank them for their unselfish support, which has provided the foundation for our past and current success.

WE THANK ALL OF OUR PARTNERS

Finally, the financial support of all of our partners – the livestock and poultry industries, private industry, provincial and federal governments, and the University of Saskatchewan – is greatly appreciated. Without this financial support, VIDO would not be able to conduct many of the pivotal research projects that ensure the migration of technologies from the laboratory to the commercial arena. We thank all of our partners, who together constitute a powerful opponent to infectious disease, for their continued interest in and support of VIDO's research efforts.

MESSAGE FROM
THE CHAIR

Knowledge comes from asking questions.
The team of inquiring minds that has come together at VIDO is poised


PETER SCHULD
CHAIR

to ask the required questions, and to seek the answers that will address the challenges and opportunities facing the livestock industry, as well as opening up new frontiers in human health.

The emerging issues of food safety and international trade protocol are of vital importance to the livestock industry, as has been so clearly made evident by the ongoing BSE situation. The expertise that has been developed at VIDO in these areas of research demonstrates ample reason for continued support from all livestock sectors, across Canada and worldwide.

VIDO's commitment to excellence and innovation has been recognized by granting agencies such as the Canada Foundation for Innovation (CFI) and Western Economic Diversification Canada (WED). I have confidence that VIDO will continue to prove itself a worthy recipient of these investments. I wish to express the Board's appreciation of this support, and at the same time acknowledge the challenges and responsibilities that come with the acceptance of this type of funding. In particular, the contribution of core funding from the Province of Saskatchewan has given VIDO a firmer foundation and the confidence to go forward, and I would like to express our appreciation for this support.

The national and international reputation of VIDO was recognized with the approval for the organization to develop the International Vaccine Centre (InterVac). This centre will complement and enhance the ongoing work in vaccine development and delivery systems, as well as provide services to other national and international agencies.

The Board of Directors has found it necessary to examine its role in the newly expanded organization. In this regard, we look forward to the report and recommendations of an external task force. Two items of primary interest to the Board are the terms of reference which will govern VIDO, and the relationship with the University of Saskatchewan.

On a personal note, I would like to express my appreciation for the opportunity to serve on the VIDO Board of Directors. I hope that in a small way I have been able to make a contribution to the ongoing work here. I realize that what I learned from being a part of the group was greater than any contribution. I would encourage the Board to continue to look ahead and plan for the continuity of a great organization.

Learn from yesterday, live for today, hope for tomorrow. The important thing is not to stop questioning.

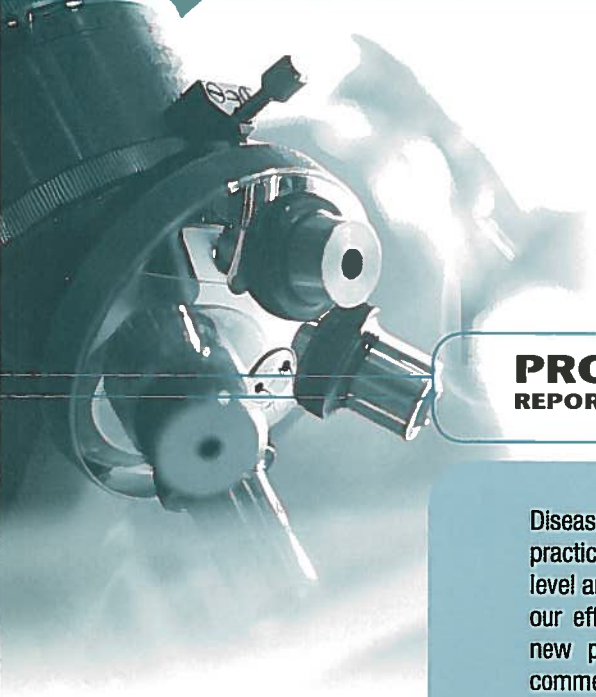
~Albert Einstein

Annual Report

2003-2004 VIDO BOARD OF DIRECTORS

Mr. Peter Schuld (Chair)
Dr. Ronald Usborne (Vice-Chair)

Dr. Stan Alkemade
Dr. Lorne Babiuk
Dr. Steven Franklin
Mr. Dickson Gould
Dr. Louise Greenberg
Ms. Catherine McKinley
Hon. Dr. Harley Olsen
Mr. Brian Perkins
Dr. Chuck Rhodes
Dr. Howard Tennant



PRODUCER RELATIONS, MARKETING AND COMMUNICATIONS

REPORT FROM THE CHIEF OPERATING OFFICER

Diseases of livestock have consequences in addition to "food safety" practices, such as their impact on economic returns at the producer level and their effect on international trade. It is our role to communicate our efforts to control diseases of livestock, and to seek and develop new partnerships that will lead to progress in the research and commercialization of technologies that will make a difference.

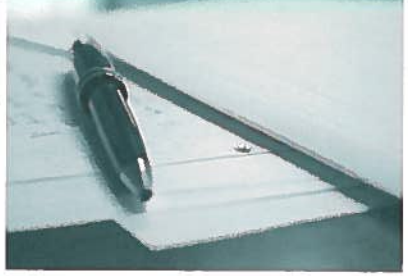
PRODUCER RELATIONS

VIDO continues to maintain close ties with Canada's producer community. Producers are our best source of information as to the needs and concerns of the livestock industry; they are our staunch supporters and advocates and a continuing source of funding; and finally as members of our Board of Directors they provide expert guidance. Although Dr. Keith Schneider, Producer Relations Manager, is no longer with us, we remain committed to our role in producer relations. We thank Dr. Schneider for the investments he made in distributing VIDO information to the producer community and his commitment to participating in VIDO's two technical groups. Recently, with the participation of VIDO scientists, we have targeted our travel to events such as poultry, dairy and swine research focus groups in which several of our key funding institutions have invited us to participate. These focus groups included representatives from western Canada and national organizations, providing us opportunities to interact with a broad segment of this community.

Both the VIDO Beef Technical Group (VBTG) and the VIDO Swine Technical Group (VSTG) have developed more stringent guidelines in terms of membership and the selection of their projects. In addition, technical group members are more frequently taking on "ambassador" roles by, for example, giving presentations as VIDO representatives to their associations and at international events such as Canadian Western Agribition. As well, a report developed by the VBTG and re-purposed by the VSTG, entitled Vaccination Guidelines, has been widely distributed and presented at industry meetings and conferences. This document has been extremely well received by the industry. It has appeared in a variety of venues, including the Pig Site, a widely-referenced European Web site, and provincial beef organization newsletters and magazines. It has also generated much interest from provincial Quality Starts Here and veterinary medical association representatives. The VSTG has also rewritten and developed new "swine tech tips" which can be viewed on the VIDO Web site.

PARTNERSHIP AND BUSINESS DEVELOPMENT

Nationally and internationally, new alliances between research institutes are being formed to address challenges and to increase efficiencies in research. VIDO continues to participate in these networks as well as the national Networks of Centres of Excellence CANVAC and CBDN. In addition to the SARS Accelerated Vaccine Initiative (SAVI), we are involved in the soon-to-be-formed Academic Network for Foreign Animal and Zoonotic

Diseases. In the last year, we have reviewed more than 80 agreements originating from around the world; from the People's Republic of China to Israel, and across the USA and Canada. We continue establishing new leads and following up on various contacts. We are also partnering with organizations such as the Canadian Light Source to better leverage our resources.

Thanks to support from the University of Saskatchewan and increasing awareness internationally, VIDO has become a popular tour destination for groups ranging from local science teachers to dignitaries from many countries, including Brazil, Cuba, Chile, Britain, Germany, France, Indonesia, Finland, Spain, Japan and the U.S., as well as Canadian ambassadors, diplomats and trade commissioners. Many of these visits have led to discussion of collaboration and follow-up meetings.

These collaborations and alliances add significantly to Canada's national capacity in defending humans and livestock against infectious diseases. The addition of InterVac to VIDO's resources will assist in establishing us as not only a cooperating or collaborating institute but as a core institution in the global fight against infectious diseases.

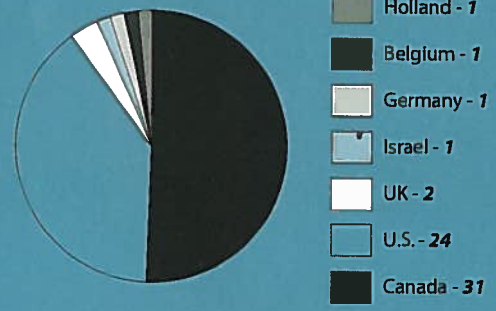
We will continue to seek out and access new funding sources, including international producer groups, foundations and other government and industry collaborators. We will continue to build on our relationships with our current funding bodies to ensure the most effective use of their funds and timely reporting of results to these agencies.

KEEPING IN TOUCH

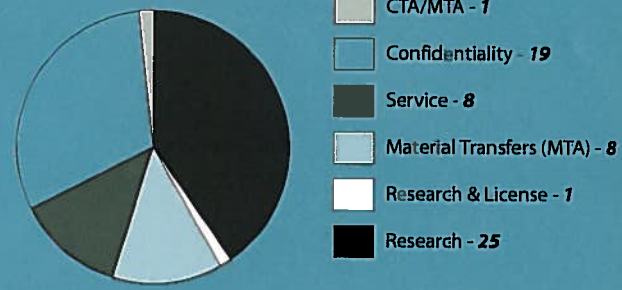
Over the past year, we have re-distributed our resources to target their impacts and make better use of in-house capacity (a communications officer was hired in September 2003). We have developed a number of new communications materials and re-designed the VIDO Web site, to which we continue to add new resources on a regular basis.

2004 was an exciting and fast-paced year in this department, created in 2003. We have enjoyed interacting with VIDO stakeholders and developing new relationships. Our responsibilities continue to evolve within VIDO's expanding mandate, and we look forward to the new contacts we will make, as well as to continuing to strengthen existing relationships.

Contract agreements by signatory countries



Contracts 2003-04



PHOTOS: ANDREW CAHILL, CARL DWYER

A TEAM OF CHAMPIONS

REPORT FROM THE HUMAN RESOURCES MANAGER

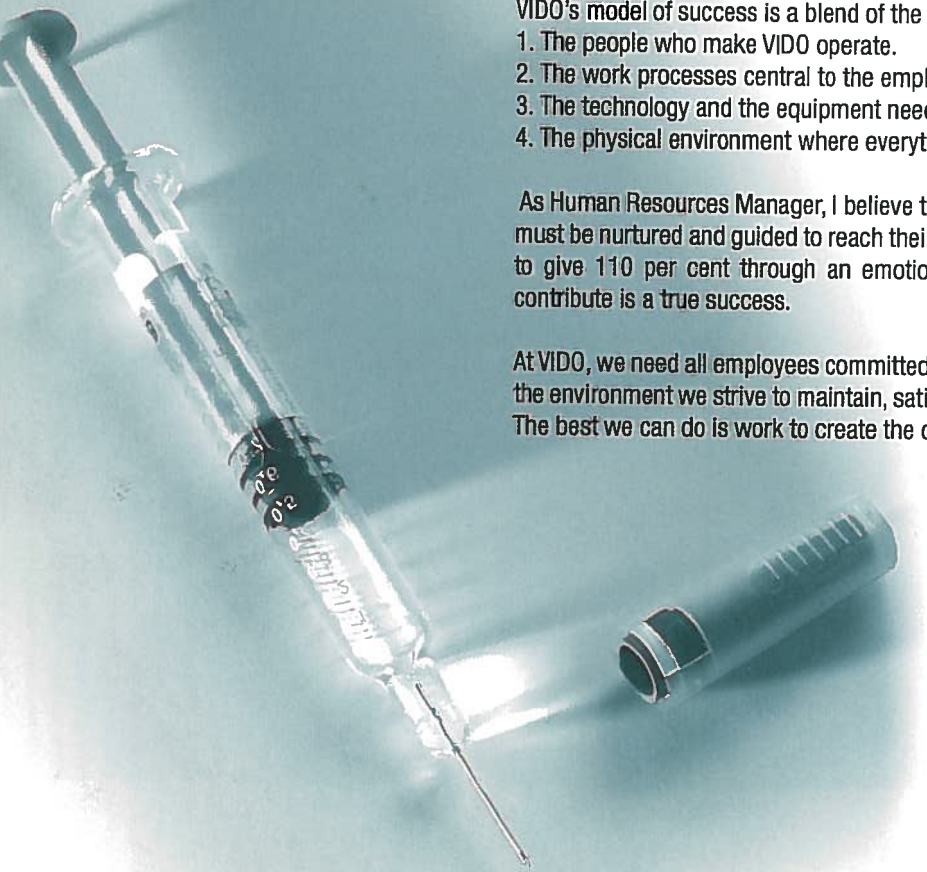
Our employees are champions, because great teams are assembled carefully. The VIDO expansion has been completed and we are approaching a stage of additional expansion with InterVac. In the interim, we need to focus on building and maintaining a winning team of employees to ensure that VIDO continues to be a lead contributor to public and animal health.

VIDO's model of success is a blend of the highest standards applied to the following:

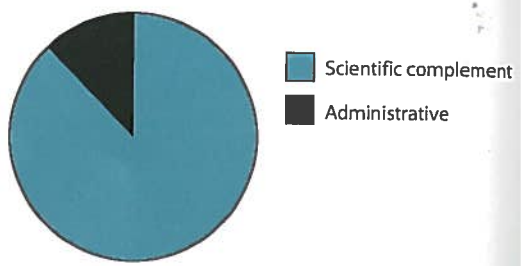
1. The people who make VIDO operate.
2. The work processes central to the employees' performances.
3. The technology and the equipment needed to perform the processes.
4. The physical environment where everything comes together.

As Human Resources Manager, I believe that hiring and retaining talented people isn't enough. They must be nurtured and guided to reach their highest potential. An organization of employees motivated to give 110 per cent through an emotional connection, maximum job satisfaction and desire to contribute is a true success.

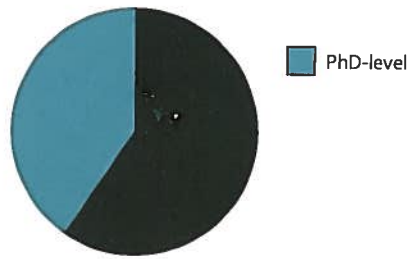
At VIDO, we need all employees committed and focusing their unique talents on what matters most. In the environment we strive to maintain, satisfaction resides in the minds and hearts of each employee. The best we can do is work to create the conditions to sustain a team of champions.



Composition of VIDO staff



PhD-level staff as complement of total staff

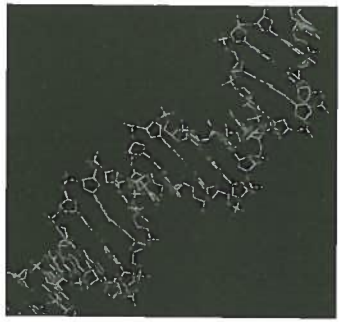


PHOTOS: STUART KASDORF, DEBRA MARSHALL

Research

Vaccines form the foundation for improvements in quality of life on an international scale.

RESEARCH TO PROTECT CANADIANS
FROM INFECTIOUS DISEASE



The future of infectious disease control is likely to lie with vaccines rather than drugs.
World Health Organization 1998 World Health Report

REPORT FROM THE ASSOCIATE DIRECTOR (RESEARCH)

Vaccines form the foundation for improvements in quality of life on an international scale. While there are persistent challenges in vaccine development, new technologies provide us the means to develop better vaccines, faster.

At VIDO, we have been:

- Using biotechnology in vaccine development for more than 20 years
- Applying genomics technologies to vaccines for 10 years
- Developing vaccines for food safety applications for five years.

Due to an expansion of our mandate to include human diseases, many VIDO research programs are applicable to a number of species, in addition to disease- and species-specific projects.

Project areas include:

- ***Both humans and animals***
  - Vaccines and delivery techniques to protect children and newborns
  - Formulation and delivery for better vaccines that offer greater protection
  - Biodefence technologies
  - "Needle-free" delivery to increase vaccine compliance and ease of delivery and decrease meat damage
- ***Livestock***
  - Vaccines for beef and dairy cattle, swine, poultry and horses
- ***Humans***
  - Emerging diseases – SARS vaccine candidates
  - Vaccines for hepatitis C
  - Food safety vaccines to protect consumers against *E. coli*, Campylobacter and Salmonella

ANIMAL AND HUMAN HEALTH: OVERLAPPING OPPORTUNITIES

The linkages between animal and human health have received significant attention over the past 5-10 years due to a number of emerging infectious diseases as well as continuing problems with traditional zoonotic diseases – diseases that can be transmitted between animals and humans. VIDO's move several years ago into the public health arena originated with a historical strength in the study of animal disease pathogenesis - the process by which a microbe causes disease in its host - and our development of novel vaccines and vaccination technologies.

NEW CHALLENGES REQUIRE NEW RESPONSE MECHANISMS

Vaccines have traditionally been the most effective method of disease control (e.g., smallpox, polio), but unfortunately the current vaccine development process can take 5-10 years for animals and 10-20 years for humans. These timeframes limit our ability to respond rapidly to emerging threats, as was recently exemplified by the SARS outbreak and spread of West Nile virus.

Recent experiences have led to initiatives designed to explore new vaccine development pathways and new partnership models between researchers and industry. VIDO is in a unique position to enhance such partnerships. Collaboration and teamwork have always been part of VIDO's culture, so we are well-equipped to ease the transfer of basic research results into commercial development pathways.

VIDO has balanced its disease-specific research programs with activities targeted at the development of vaccine formulation and delivery technologies that can be rapidly applied to any disease organism or host species. Our animal models also offer more

PHOTOS: ACCELRYS IMAGE GALLERY

informative alternatives to vaccine testing in rodents. Finally, we are moving our disease-specific projects into the public health area, including work on SARS and hepatitis C, as well as food safety threats such as enterohemorrhagic *E. coli*, Salmonella species, *Campylobacter jejuni* and *Cryptosporidium parvum*. Selected examples are described below.

FOOD AND WATER SAFETY

Bacterial pathogens are responsible for a significant number of illnesses and deaths each year around the globe. *Salmonella enterica* species still account for the majority of deaths, but Campylobacter has now surpassed this group in terms of the total number of cases of intestinal disease. Many of these organisms exist naturally as part of the intestinal flora of animals and thus pose a risk to humans not only through contaminated food, but also through environmental contamination.

Our past work with Dr. Brett Finlay (University of British Columbia) on enterohemorrhagic *E. coli* vaccines has demonstrated the potential for vaccination of cattle as a means of reducing levels of this organism – which contaminated Walkerton's drinking water in May 2000. We have extended this collaboration to include both *Salmonella typhimurium* as well as *Salmonella enteriditis* in chickens using a conceptually similar approach. This work has been enhanced significantly by the establishment (with Bioniche Life Sciences) of two NSERC Industrial Research Chairs in Food and Water Safety during 2004, permitting expansion of the research group as well as the scope of our Food and Water Safety research program.

In addition, VIDO scientists continue to collaborate with researchers at the National Research Council to determine mechanisms of colonization of animals by *C. jejuni*, a process which appears to be very different from that employed by *E. coli* and Salmonella species. Thus, a different approach to vaccine development will need to be followed for this organism. We have utilized genomic and proteomic technologies in combination with classical molecular genetics to define bacterial components which interact with host cells and these are currently being evaluated for their vaccine potential.

RESPONDING TO EMERGING THREATS

The emergence of new infectious agents or the re-emergence of variants of existing pathogens presents a unique public health concern, as was evidenced by the SARS outbreak in 2003. It was clear that conventional methods of vaccine development would not be useful in the face of such an outbreak and therefore the SARS Accelerated Vaccine Initiative (SAVI) was established to explore new rapid methods for the development and testing of prototype vaccines. VIDO has been an active participant in SAVI as a collaborator in the formulation and testing of both conventional vaccines and vaccines created through biotechnology. We have demonstrated that formulation of inactivated virus with synthetic polymers (polyphosphazenes) results in a strong, balanced immune response following immunization of mice. Polymers have been shown to have powerful effects on the immune response, increasing its magnitude, quality and duration, without causing tissue reactions. In addition, formulations containing CpG also elicited excellent responses. CpG sequences can stimulate the mammalian innate ("natural") immune response, as vertebrates "perceive" CpGs as a danger signal.

We are currently evaluating the potential of vaccines using viral vectors to stimulate immune responses, and are also analyzing the function of a unique group of SARS coronavirus proteins.

VACCINES FOR THE MOST VULNERABLE

The most susceptible populations to a number of infectious diseases include both neonates and young children. Throughout its history, VIDO has devoted a significant effort to the development and testing of vaccine formulations and other control methods for this population, primarily in the animal health field. Over the past three years, Dr. Volker Gerdts and his collaborators have been using *Bordetella pertussis* (the causative agent of whooping cough) as a model for

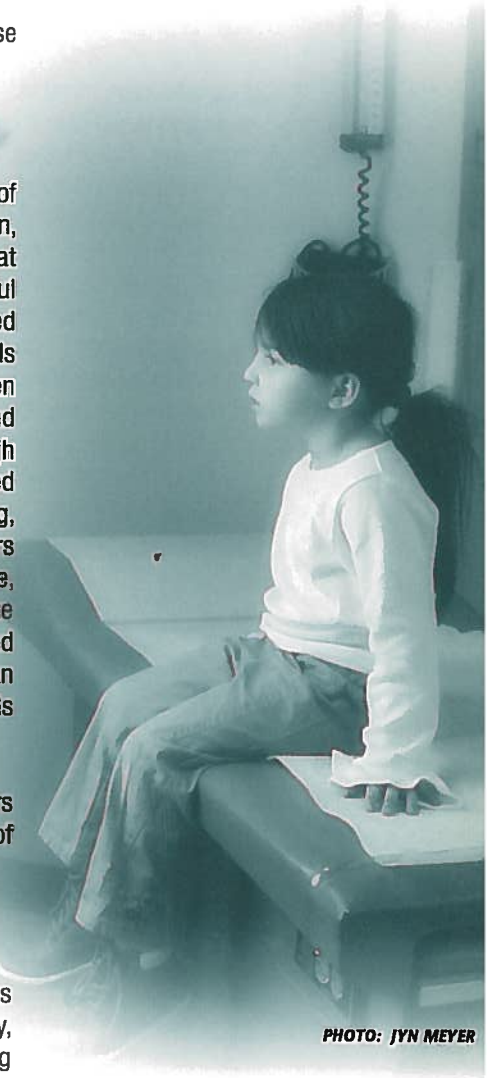


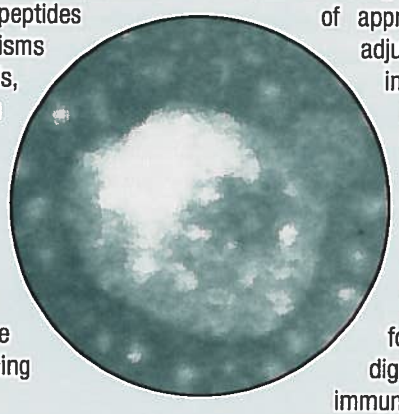
PHOTO: JYN MEYER

"Immunization programmes have yielded the most significant changes in child health in the last few decades."

World Health Report 1999

neonatal immunization. This disease is attractive as a research target in that commercially available vaccines have met with success in controlling the disease, yet there are some populations that remain at risk.

Research on how pertussis develops has historically been carried out using rodent disease models whose relevance to human disease would have to be viewed as questionable. Dr. Gerdts and his group have successfully developed a pertussis disease model in swine, the first time this has been accomplished, and identified a population of protective proteins, beta-defensin peptides, conferring resistance to infection. The role of these antimicrobial peptides (molecules produced by organisms ranging from bacteria to mammals, that are promising alternatives to antibiotics), and their potential use as immune system modulators is also part of Dr. Gerdts' research. This work is being further investigated in the context of developing treatments based upon enhancement of innate immune responses as well as vaccine formulations capable of inducing mucosal immunity.



BEYOND NEEDLES

Significant advances have been made over the past two decades in the identification of antigens – substances that prompt an immune response – produced by infectious agents as well as the development of methods for their production. However, these antigens are often still formulated and delivered using technologies which are reminiscent of those employed by Louis Pasteur more than a century ago. We feel that this is now a limiting step in increasing the efficacy of new vaccines and thus VIDO has been actively developing platform technologies – technologies that can be applied across species and across diseases – to qualitatively and quantitatively increase immune responses in immunized subjects.

This is being accomplished through a number of approaches. We are developing novel adjuvants – substances that enhance the immune response to a vaccine – and immunostimulators. We are also developing vectored viral vaccines and alternative formulations such as nucleic acid (DNA) vaccines.

Most pathogens gain access to the body via the mucosal surfaces of, for example, the respiratory tract or digestive tract. Thus, induction of mucosal immunity is essential for protection. However, a major obstacle to effective mucosal vaccination is the lack of safe and effective mucosal adjuvants. VIDO has been studying a variety of compounds, including polyphosphazene polymers. These compounds are versatile in their delivery applications and can be used for both systemic (affecting the body as a whole) and mucosal vaccines. In addition, they can be used as particle-based delivery systems since they can easily be made into microspheres.

Dr. George Mutwiri has shown that when influenza virus antigens are formulated with polyphosphazenes and delivered intranasally, they can induce a significant mucosal immune response, especially if animals are given a booster immunization.

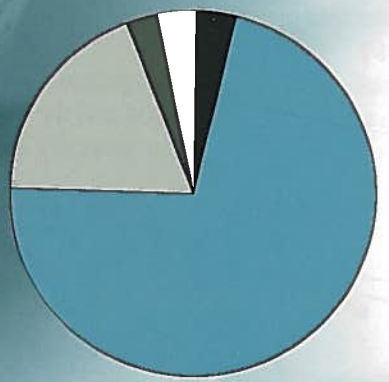
We have also utilized a variety of other antigens, including those from *E. coli* 0157:H7, with similar results. Polyphosphazene formulations have also been tested with CpGs in order to determine whether balanced, cell-mediated (lymphocyte) immune responses can be induced. This work has proven successful in small animal models and we are currently extending it to dairy cattle using *Staphylococcus aureus* antigens, the most prevalent infectious bacteria isolated from bovine mammary gland secretions, as a model vaccine. A variety of other adjuvants are also being tested in a similar fashion. Ultimately we hope to be able to offer non-invasive vaccination strategies that will efficiently induce immunity at the site of infection in a balanced fashion.

With roughly 15 major project areas, VIDO's other research activities in the fields of pathogenomics, biochemistry, mucosal immunology, bacteriology, clinical research and virology all contribute to our ability to rapidly respond to public health threats as well as sustaining our historical focus on infectious diseases of animals. However, given the linkages between human and animal health, we foresee a greater emphasis on diseases affecting both populations as we move into the future.

PHOTOS: DR. MARTIN PETRIC (UBC), WLT DISTRIBUTORS

financials

Income sources (2003-04)



- University of Saskatchewan
- Other
- Contracts/licensing/royalties
- Conditional grants
- Donations/unconditional grants

Deloitte

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AUDITORS' REPORT

**TO THE BOARD OF DIRECTORS OF THE
VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO),
UNIVERSITY OF SASKATCHEWAN**

We have audited the combined balance sheet of the Vaccine & Infectious Disease Organization (VIDO), University of Saskatchewan ("the Organization") as at September 30, 2004 and the statements of income, expenditure and fund balance (Research Trust, Dr. Alfred Savage VIDO Research Fund and Capital Trust) and combined statement of cash flows for the year then ended. These financial statements are the responsibility of the Organization's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Organization as at September 30, 2004 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Deloitte & Touche LLP

Chartered Accountants

Saskatoon, Canada
January 24, 2005

VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO), UNIVERSITY OF SASKATCHEWAN

RESEARCH TRUST - STATEMENT OF INCOME, EXPENDITURE AND FUND BALANCE
YEAR ENDED SEPTEMBER 30, 2004

	2004	2003
INCOME		
Donations and unconditional grants (Schedule 1)	$ **393,950**	$ 371,005
Conditional grants (Schedule 2)	**6,681,642**	6,514,964
Amortization of Conditional grants - Building expansion (Note 6)	**847,484**	242,198
Contract research		
Commercial	**1,253,086**	2,046,272
Government of the Province of Saskatchewan		
-Saskatchewan Department of Agriculture, Food and Rural Revitalization	**300,000**	300,000
Gift-in-kind	**37,078**	-
Royalties and dividends	**396,936**	415,236
Investment income	**104,806**	101,028
Animal sales	**149,572**	140,872
University of Saskatchewan (Schedule 2)	**331,562**	254,633
	10,496,116	10,386,208

See accompanying notes

VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO), UNIVERSITY OF SASKATCHEWAN

RESEARCH TRUST - STATEMENT OF INCOME, EXPENDITURE AND FUND BALANCE
YEAR ENDED SEPTEMBER 30, 2004

	2004	2003
EXPENDITURE		
Salaries and benefits	**5,483,480**	5,149,297
Materials and supplies	**2,367,524**	2,451,964
Equipment repair and service agreements	**205,648**	215,740
Sub-contract research (Note 8)	**142,890**	28,500
Travel and recruiting	**294,976**	256,672
Patents and legal fees	**166,337**	312,861
Amortization	**1,347,556**	689,910
Other expenditures (Note 9)	**216,645**	229,107
	10,225,056	9,334,051
EXCESS OF INCOME OVER EXPENDITURE	**271,060**	1,052,157
FUND BALANCE, BEGINNING OF YEAR	**6,926,954**	5,733,837
	7,198,014	6,785,994
TRANSFER TO CAPITAL TRUST	**(200,000)**	-
PURCHASE OF CAPITAL ASSETS FROM CAPITAL TRUST	**-**	140,960
FUND BALANCE, END OF YEAR	**$ 6,998,014**	$ 6,926,954

See accompanying notes

VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO),
UNIVERSITY OF SASKATCHEWAN

DR. ALFRED SAVAGE VIDO RESEARCH FUND
STATEMENT OF INCOME, EXPENDITURE AND FUND BALANCE
YEAR ENDED SEPTEMBER 30, 2004

	2004			2003		
	Restricted for Endowment Purposes	**Expendable Funds**	**TOTAL**	Restricted for Endowment Purposes	Expendable Funds	TOTAL
EXCESS OF INCOME OVER EXPENDITURE						
Investment Earnings	**$ 4,895**	**$ 4,316**	**$ 9,211**	$ 1,523	$ 4,101	$ 5,624
FUND BALANCE, BEGINNING OF YEAR	**71,898**	**23,159**	**95,057**	61,784	27,649	89,433
	76,793	**27,475**	**104,268**	63,307	31,750	95,057
Transfer expendable funds to endowment funds	-	-	-	8,591	(8,591)	-
FUND BALANCE, END OF YEAR	**$ 76,793**	**$ 27,475**	**$ 104,268**	$ 71,898	$ 23,159	$ 95,057

See accompanying notes

VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO),
UNIVERSITY OF SASKATCHEWAN

CAPITAL TRUST

STATEMENT OF INCOME, EXPENDITURE AND FUND BALANCE

YEAR ENDED SEPTEMBER 30, 2004

	2004	2003
EXCESS OF INCOME OVER EXPENDITURE		
Investment earnings	$ **48,262**	$ 47,460
Gifts-in-Kind	**-**	82,000
	48,262	129,460
FUND BALANCE, BEGINNING OF YEAR	**1,147,905**	1,159,405
	1,196,167	1,288,865
Purchase of Capital Assets	**-**	(140,960)
Transfer from Research Trust	**200,000**	-
	200,000	(140,960)
FUND BALANCE, END OF YEAR	$ **1,396,167**	$ 1,147,905

See accompanying notes

VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO),
UNIVERSITY OF SASKATCHEWAN

COMBINED BALANCE SHEET
AS AT SEPTEMBER 30, 2004

ASSETS	2004	2003
CURRENT ASSETS		
Funds held - University of Saskatchewan	**$ 3,275,828**	$ 2,962,036
Accounts receivable (Note 3)	**1,352,612**	1,181,919
Inventories (Note 4)	**169,643**	201,502
	4,798,083	4,345,457
INVESTMENTS	**984,416**	900,531
CAPITAL ASSETS (Note 5)	**21,089,595**	19,622,163
	$ 26,872,094	$ 24,868,151

VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO),
UNIVERSITY OF SASKATCHEWAN

COMBINED BALANCE SHEET
AS AT SEPTEMBER 30, 2004

LIABILITIES	2004	2003
CURRENT LIABILITIES		
Due to University of Saskatchewan	$ **1,896,944**	$ 1,638,836
Accounts payable	**18,600**	15,400
Accrued vacation pay	**610,970**	474,469
Unearned grants (Schedule 2)	**1,789,318**	1,143,118
	4,315,832	3,271,823
UNEARNED GRANTS - BUILDING EXPANSION (Note 6)	**14,057,813**	13,426,412
	$ **18,373,645**	$ 16,698,235
EQUITY		
RESEARCH TRUST	$ **6,998,014**	$ 6,926,954
DR. ALFRED SAVAGE VIDO RESEARCH FUND	**104,268**	95,057
CAPITAL TRUST	**1,396,167**	1,147,905
	8,498,449	8,169,916
	$ **26,872,094**	$ 24,868,151

APPROVED BY THE BOARD:

Director

Trustee

See accompanying notes

VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO),
UNIVERSITY OF SASKATCHEWAN

COMBINED STATEMENT OF CASH FLOWS
YEAR ENDED SEPTEMBER 30, 2004

	2004	2003
CASH FLOWS FROM (USED IN) OPERATING ACTIVITIES		
Cash received from Livestock industry	$ **375,250**	$ 350,105
Cash received from Provincial governments and individuals	**18,700**	20,900
Cash received from Conditional grants	**7,296,909**	5,884,167
Cash received from Sale of animals	**149,572**	140,872
Cash received as Gift in Kind	**37,078**	82,000
Cash received from Contract research	**1,553,086**	2,346,272
Cash received from Royalties, licensing and dividends	**396,936**	415,236
Cash received from University of Saskatchewan	**190,476**	151,870
Interest income received for operating purposes	**104,806**	101,028
Cash paid for Salaries and benefits	**(5,343,779)**	(5,047,133)
Cash paid for Materials and supplies	**(2,335,665)**	(2,500,685)
Cash paid for Patent and legal costs	**(166,337)**	(312,861)
Cash paid for Sub-contract research	**(142,890)**	(28,500)
Cash paid for Other expenditures	**(717,269)**	(700,104)
	1,416,873	903,167
Interest earned on Dr. Alfred Savage VIDO Research Fund	**4,316**	4,101
Net cash generated through operating activities	**1,421,189**	907,268
CASH FLOWS USED IN INVESTING ACTIVITIES		
Increase in University of Saskatchewan investment pool	**(83,885)**	(57,602)
Purchase of capital assets from Capital Trust, net of disposals	**-**	(140,960)
Purchase of capital assets from Research Trust, net of disposals	**(65,798)**	(784,672)
Purchase of capital assets from Research Trust-Building expansion funds	**(2,749,190)**	(11,835,423)
Net cash used in investing activities	**(2,898,873)**	(12,818,657)

See accompanying notes

VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO),
UNIVERSITY OF SASKATCHEWAN

COMBINED STATEMENT OF CASH FLOWS
YEAR ENDED SEPTEMBER 30, 2004

	2004	2003
CASH FLOWS FROM (USED IN) FINANCING ACTIVITIES		
Funds received for building expansion - Research Trust	**1,451,248**	6,503,175
Increase in Dr. Alfred Savage VIDO Research Fund investments	**4,895**	1,523
Interest income received on Capital Trust Funds	**49,588**	47,324
Interest earned on building expansion funds	**27,637**	34,033
Net cash provided by financing activities	**1,533,368**	6,586,055
NET (DECREASE) INCREASE IN CASH HELD	**55,684**	(5,325,334)
CASH, BEGINNING OF YEAR	**1,323,200**	6,648,534
CASH, END OF YEAR	**$ 1,378,884**	$ 1,323,200
Funds Held - University of Saskatchewan	**$ 3,275,828**	$ 2,962,036
Due to University of Saskatchewan	**(1,896,944)**	(1,638,836)
	$ 1,378,884	$ 1,323,200

See accompanying notes

VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO), UNIVERSITY OF SASKATCHEWAN

NOTES TO THE FINANCIAL STATEMENTS
SEPTEMBER 30, 2004

1. AUTHORITY and PURPOSE

The Vaccine & Infectious Disease Organization (VIDO) was established by an Agreement dated August 11, 1975 between the Devonian Foundation of Calgary, Alberta, the Province of Alberta, the Province of Saskatchewan and the University of Saskatchewan to conduct research on infectious diseases of animals. VIDO's name was changed from the Veterinary Infectious Disease Organization to the Vaccine & Infectious Disease Organization on March 19, 2003.

Effective April 1, 1980 the above Agreement was replaced by a Constitution which was amended September 23, 1996. The Constitution provides for a Board of Directors to assume the responsibilities formerly performed by the Board of Advisors and the Governing Committee.

2. SIGNIFICANT ACCOUNTING POLICIES

These financial statements have been prepared in accordance with Canadian generally accepted accounting principles which include the following policies:

FUND ACCOUNTING

VIDO follows the deferral method of accounting for contributions and grants to each of its funds. VIDO classifies its funds by purpose and objective as follows:

The Research Trust fund consists of revenue and expenditures related to VIDO's program delivery and administrative activities. This may also include funds raised specifically for the building expansion and for the purchase of other assets through grants.

The Capital Trust fund consists of grants, investment earnings and authorized transfers from the Research Trust fund and Dr. Alfred Savage VIDO Research Fund to be used for the purpose of acquiring capital assets approved by the Board of Directors.

The Dr. Alfred Savage VIDO Research Fund was approved as an endowment for VIDO until 2010. During the endowment period, a portion of the fund's annual investment earnings are available to purchase equipment, instruments, materials and supplies to be used in research projects.

USE OF ESTIMATES

The preparation of the financial statements in accordance with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and notes to the financial statements. Actual results may differ from those estimates.

INVENTORIES

Inventories of materials and supplies are valued at the lower of cost and net realizable value. Animal inventory is valued at cost.

INVESTMENTS

Funds designated as endowment funds, restricted for the purposes of acquiring capital assets or future expenditures are invested with other funds from the University of Saskatchewan in a long-term investment pool. Long-term investments are carried at market value.

REVENUE RECOGNITION

Restricted contributions are recognized as revenue of the Research Trust fund in the year in which the related expenditures are incurred. Donations and unconditional grants are recognized as revenue of the Research Trust fund when received. License fees, research payments and royalties are recognized as they are received under the terms of the agreements with the licensees or contractors. Gifts-in-kind, including equipment are recorded at fair market value on the date of their donation. The financial statements do not include certain investment revenue received by the University of Saskatchewan from VIDO revenue sources.

Investment income earned on the Dr. Alfred Savage VIDO Research fund is recognized as income of that fund; a portion of the fund's earnings is retained for reinvestment. Investment income earned on the Research Trust fund and Capital Trust fund is recognized as revenue when earned.

Royalties are recognized as they are received or earned.

UNEARNED GRANTS – BUILDING EXPANSION

Various funding parties have designated grants and commitments for the building and equipping of the expansion to the VIDO facility (Note 6). Restricted funds received for this purpose are accounted for under the deferral method whereby the contribution is deferred and recognized as revenue on the same basis as the amortization expense related to the acquired capital assets.

The current year amortization is $847,484 (2003 - $242,198).

CAPITAL ASSETS

Purchased capital assets are recorded at cost. Donated capital assets are recorded at fair market value upon receipt. Amortization is provided on a straight-line basis over the asset's estimated life as follows:

Computers	3 years	Software	3 years
Vehicles	6 years	Furnishings and equipment	8 years
Site improvements	20 years	Buildings	40 years

In the year of aquisition, amortization is prorated based on the date of aquisition. For the building expansion, amortization began when the assets were put into use.

3. ACCOUNTS RECEIVABLE

	2004	2003
Conditional grants (Schedule 2)	$ 1,351,904	$ 1,179,885
Accrued interest	708	2,034
	$ 1,352,612	$ 1,181,919

4. INVENTORIES

	2004	2003
Animals	$ 71,788	$ 67,863
Materials and supplies	97,855	133,639
	$ 169,643	$ 201,502

5. CAPITAL ASSETS

	2004			2003
	Cost	Accumulated Amortization	Net Book Value	Net Book Value
Computers	$ 588,343	$ 421,376	$ 166,967	$ 182,557
Software	30,425	19,261	11,164	10,370
Vehicles	151,883	119,176	32,707	54,096
Furnishings and equipment	7,068,959	2,629,037	4,439,922	4,340,678
Site improvements	271,876	155,332	116,544	101,077
Buildings	19,900,074	3,577,783	16,322,291	14,933,385
	$ 28,011,560	$ 6,921,965	$ 21,089,595	$ 19,622,163

6. UNEARNED GRANTS – BUILDING EXPANSION

Unearned grants reported in the Research Trust fund include the unamortized portions of restricted funding designated for the building and equipping of an expansion to the VIDO facility.

Funding details and amortization to revenue are as follows:

	Committed	Received to 2004	2004 Revenue	Prior Years Earned	2004 Unearned Revenue	2003 Unearned Revenue
Western Economic Diversification	**$ 5,640,000**	**3,826,560**	**289,068**	104,935	**3,432,557**	2,712,150
Canada Foundation for Innovation	**5,151,773**	**3,795,343**	**244,855**	166,626	**3,383,862**	3,628,717
Province of Saskatchewan Alberta Science and Research Authority	**5,651,773**	**5,651,773**	**268,619**	131,793	**5,251,361**	5,078,207
- Income earned	**2,000,000**	**2,000,000**	**44,942**	52,114	**1,902,944**	1,947,886
- Interest earned	**-**	**133,963**	**-**	46,874	**87,089**	59,452
	$ 18,443,546	**15,407,639**	**847,484**	502,342	**14,057,813**	13,426,412

Funds received from Alberta Science and Research Authority and interest earned on those funds are restricted to the purchase of equipment.

7. BUILDING EXPANSION

VIDO has expanded its research capacity to include genomics, therapeutics, new delivery systems and diagnostics research. To accommodate this, construction and equipping of a 51,476 square foot building addition estimated to cost $18.5 million began in March, 2002. As at September 30, 2004, the building was completed at a cost of $14.5 million.

8. SUB-CONTRACT RESEARCH

During the year VIDO entered into sub-contract research collaborations with various third parties relating to funding from conditional grants and contracts including the following:

	2004	2003
Dalhousie University	$ 38,000	$ 28,500
University of Calgary	104,890	-
	$ 142,890	$ 28,500

9. OTHER EXPENDITURES

Other expenditures consist of VIDO operating accounts which include repairs and maintenance, equipment rental, annual report and technical bulletins, professional fees and Board expenses.

The financial statements do not include expenditures for in-kind support and services provided by the University of Saskatchewan.

10. INCOME AND OTHER TAXES

VIDO is not subject to either federal or provincial income taxes or capital taxes. VIDO is required to pay GST, net of rebates and PST on taxable services and supplies.

11. RELATED PARTY TRANSACTIONS

a) VIDO is a research unit of the University of Saskatchewan. The University of Saskatchewan maintains, as part of its normal operations, various infrastructure services (utilities, caretaking, building maintenance), financial and administrative functions relating to VIDO.

b) The University of Saskatchewan is the beneficiary of a Trust which owns 16.53% of Star Biotech Inc. as at March 31, 2004 (2003-16.53%). Star Biotech Inc. is an investment holding company. Prior to the sale of the research and development assets, it was a research development company associated with the development of some of VIDO's products and technologies. During the year VIDO had the following transactions with Star Biotech Inc.:

	2004	2003
Income from Star Biotech Inc. to VIDO		
Royalties	$ -	$ 100,000

12. CONTINGENCIES

VIDO has entered into certain contractual arrangements, which may require repayment of the contracted amount if the research sponsored by the contract results in commercialization. There are no amounts repayable under these contracts at September 30, 2004.

13. COMPARATIVE FIGURES

Certain of prior year's comparative figures have been reclassified to conform to the current year's presentation.

Schedule 1

VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO), UNIVERSITY OF SASKATCHEWAN

SCHEDULE OF DONATIONS AND UNCONDITIONAL GRANTS
YEAR ENDED SEPTEMBER 30, 2004

	2004	2003
LIVESTOCK INDUSTRY		
Beef		
British Columbia Cattlemen's Association	$ 2,500	$ -
Saskatchewan Horned Cattle Trust Fund	22,500	37,500
Kamloops Stockmen's Association	1,000	1,000
Saskatchewan Cattle Marketing Deductions Fund	205,000	180,000
Ontario Cattlemen's Association	4,000	2,000
Alberta Cattle Commission	10,000	10,000
	245,000	230,500
Swine		
Alberta Pork	50,000	50,000
B.C. Hog Marketing Commission	-	2,500
Ontario Pork Producers Marketing Board	6,000	12,000
Manitoba Pork Council	25,000	25,000
Sask Pork	15,000	30,000
Swine Improvement Services Co-operative Ltd.	-	105
	96,000	119,605
Dairy		
Dairy Farmers of Saskatchewan Inc.	5,000	-
Poultry		
Alberta Chicken Producers	29,250	-
PROVINCIAL GOVERNMENTS		
British Columbia	3,500	5,700
Manitoba	15,200	15,200
	18,700	20,900
	$ 393,950	$ 371,005

See accompanying notes

VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO)
UNIVERSITY OF SASKATCHEWAN
SCHEDULE OF CONDITIONAL GRANTS AND CONTRACTS
YEAR ENDED SEPTEMBER 30, 2004

	September 30, 2003		2004	September 30, 2004			
	Accounts Receivable	Unearned Revenue	Funds Received	Accounts Receivable	Unearned Revenue	2004 Income	2003 Income
Federal Departments and Agencies							
Natural Sciences & Engineering Research Council							
Operating, Strategic and Equipment	$ -	$ 76,597	$ 418,496	$ -	$ 270,175	$ 224,918	$ 495,830
Industrial Research Chair	-	-	302,147	-	228,668	73,479	-
Canadian Institutes of Health Research	-	468,616	742,811	-	530,401	681,026	868,634
Canadian Bacterial Diseases Network	38,204	-	335,287	-	78,878	218,205	176,073
Agriculture and Agri-Food Canada	36,191	-	729,000	-	51,593	641,216	724,289
Public Works & Government Services Canada	7,900	-	54,185	88,189	-	134,474	7,900
Canada Research Chair	-	266,156	162,500	38,230	76,836	390,050	160,985
Research Network on Bacterial Pathogens of Swine	-	64,407	111,400	-	67,788	108,019	98,726
National Canadian Training Research Program	-	-	38,750	-	24,209	14,541	-
Canvac	64,501	-	157,000	-	62,020	30,479	199,753
Genome Canada	770,892	-	2,377,373	310,996	-	1,917,477	2,819,734
Provincial Departments and Agencies							
Saskatchewan Council for Community Development	120,170	-	300,000	-	-	179,830	307,527
Saskatchewan Department of Agriculture and Food	22,718	47,779	388,000	55,524	80,975	387,610	272,908
Saskatchewan Synchrotron Institute	-	-	1,334	-	-	1,334	-
Government of Saskatchewan - Department of Learning	-	-	-	369,760	-	369,760	-
Saskatchewan Health Research Foundation	-	67,174	330,129	-	140,380	256,923	89,185
Alberta Agriculture Research Institute (AARI)	-	-	-	-	-	-	24,591
Alberta Livestock Industry Development Fund Ltd.	-	97,680	226,170	-	90,613	233,237	2,830
Ontario Ministry of Agriculture & Food	38,782	-	73,747	54,966	-	89,931	44,385
Beef Cattle Industry Development Fund	-	6,995	-	8,737	-	15,732	12,291
Saskatchewan Beef Development Board	-	-	9,000	-	-	9,000	(9,000)
Beef Cattle Research Council	3,312	-	22,500	7,500	-	26,688	24,531
BC Centre for Disease Control	-	-	42,000	-	29,254	12,746	-
Producer Groups							
Ontario Cattlemen's Association	42,137	-	51,000	-	-	8,863	95,180
Dairy Farmers of Ontario	-	-	37,000	-	26,723	10,277	-
Alberta Beef Producers	-	43,252	75,000	-	4,665	113,587	31,748
Poultry Industry Council	18,784	4,462	17,250	-	6,000	(3,072)	30,758
Ontario Pork Producers Marketing Board	-	-	16,180	-	5,935	10,245	-
Sask Pork	-	-	5,000	-	5,000	-	-
Other Agencies							
Coley Pharmaceutical Group, Inc.	-	-	222,093	160,436	-	382,529	-
Livestock Environmental Initiative	2,947	-	13,557	8,357	-	18,967	35,105
Bioniche Life Sciences Inc.	-	-	-	58,948	-	58,948	-
Michael Smith Foundation for Health Research	1,001	-	38,000	27,624	-	64,623	1,001
	$ 1,167,539	$ 1,143,118	$ 7,296,909	$ 1,189,267	$ 1,780,113	$ 6,681,642	$ 6,514,964
University of Saskatchewan							
Indirect Cost of Research Allocation	$ -	$ -	$ 22,000	$ -	$ 9,205	$ 12,795	$ 50,000
Canada Research Chair - Infrastructure	12,346	-	168,476	162,637	-	318,767	204,633
	$ 12,346	$ -	$ 190,476	$ 162,637	$ 9,205	$ 331,562	$ 254,633
	$ 1,179,885	$ 1,143,118	$ 7,487,385	$ 1,351,904	$ 1,789,318	$ 7,013,204	$ 6,769,597

See accompanying notes

RESEARCH COLLABORATORS

Active Pass Pharmaceuticals, Vancouver, BC

Dr. Mike Ainsley – Dow AgroSciences Canada Inc., Calgary, AB

Dr. Robert Anderson – Department of Microbiology and Immunology, Dalhousie University, Halifax, NS

Dr. Jean-Christophe Audonnet – Merial, Lyon, France

Dr. Claude Bagnis – Gene Therapy Laboratory, Marseille, France

Dr. Fiona Brinkman – Department of Molecular Biology and Biochemistry, Simon Fraser University, Vancouver, BC

Dr. M. Czub – Department of Health, Government of Canada, Winnipeg, MB

Dr. Dirk Deregt – Canadian Food Inspection Agency, ADRI, Lethbridge, AB

Dr. Brett Finlay – Biotechnology Laboratory, University of British Columbia, Vancouver, BC

Dr. Michael Fontaine – Moredun Research Institute, Penicuik, Scotland

Dr. Vic Gannon – Animal Diseases Research Institute, Health Canada, Lethbridge, AB

Dr. Jack Gauldie – Department of Pathology and Molecular Medicine, McMaster University, Hamilton, ON

Genome Canada – Ottawa, ON

Genome BC – Vancouver, BC

Genome Prairie – Calgary, AB

Dr. Marcelo Gottschalk – University of Montreal, Saint-Hyacinthe, QC

Dr. Carlton Gyles – University of Guelph, Guelph, ON

Dr. Scott A. Halperin – Pediatrics, Dalhousie University, Halifax, NS

Dr. Beth Halperin – Pediatrics, Dalhousie University, Halifax, NS

Dr. Robert E.W. Hancock – Centre for Microbial Diseases and Immunity Research, University of British Columbia, Vancouver, BC

Dr. Balazs Harrach – Veterinary Medical Research Institute, Budapest, Hungary

Dr. Karsten Holkamp – Simon Fraser University, Vancouver, BC

Dr. Mario Jacques – University of Montreal, Saint-Hyacinthe, QC

Dr. Len Juris – Dow AgroSciences Canada Inc., Calgary, AB

Dr. Vivek Kapur – University of Minnesota, Minneapolis, MN, USA

Dr. Bill Kay – University of Victoria, Victoria, BC

Dr. John Kelly – Institute for Biological Sciences, National Research Council of Canada, Ottawa, ON

Dr. Mohamed Karmali – Laboratory for Foodborne Zoonoses, Health Canada, Guelph, ON

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