THE AURUM INSTITUTE

Annual Report | **2010**

THE AURUM INSTITUTE

A South African non-profit public benefit organisation

We acknowledge and thank our funders and collaborators for their continued support.

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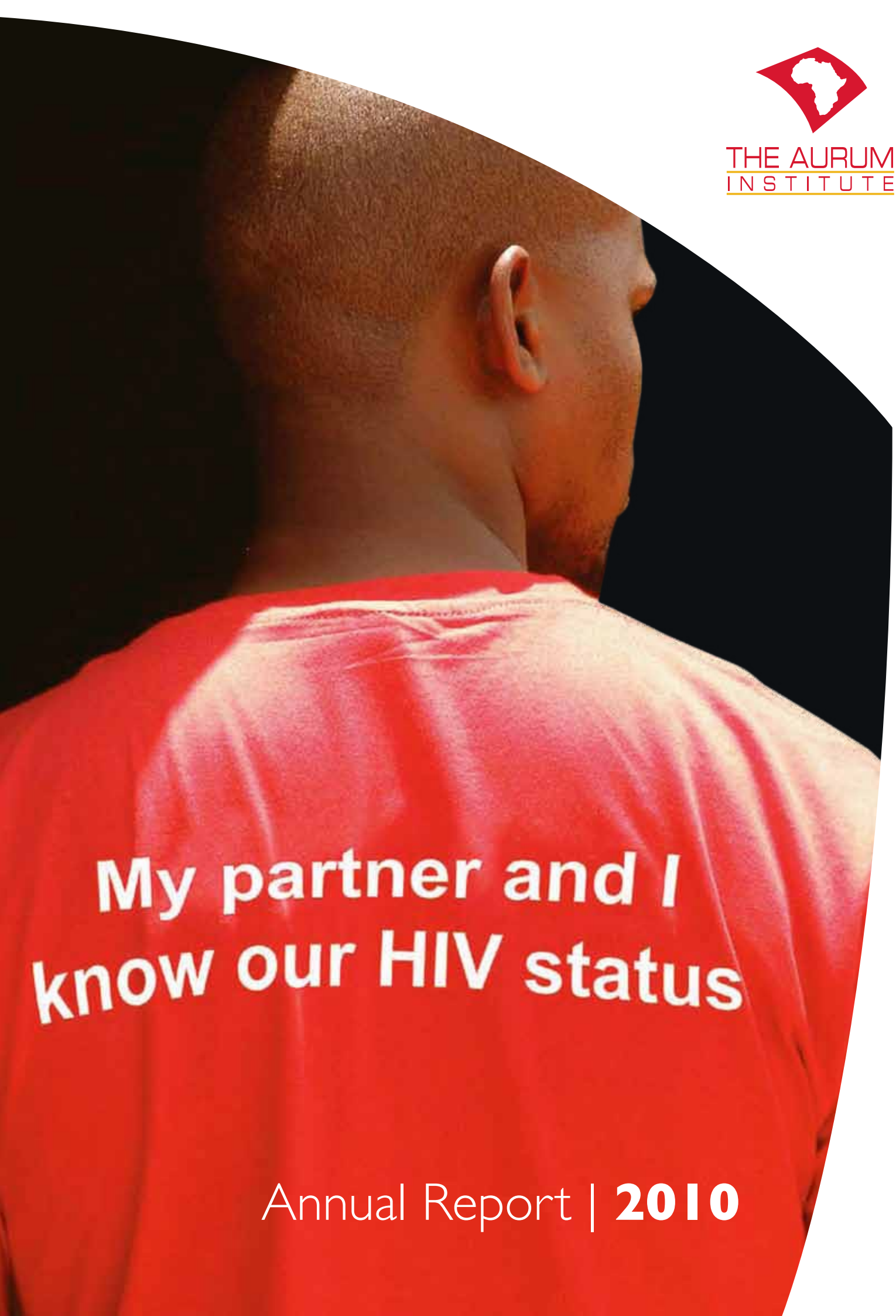

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Our vision, **mission and values**

Our Vision

We are an internationally respected "not for profit" African organisation that transforms health in the community.

We do this by:

- *Conducting transformational research that seeks to inform international and national prevention, treatment and care policy and practice in Tuberculosis (TB) and HIV.*
- *Designing, testing and implementing health systems and approaches to bring care and treatment to people living with TB and HIV/AIDS and their communities.*
- *Operating at the highest levels of governance and efficiency to ensure that partner and donor funding reaches maximum potential and intended outcomes.*

Our Mission

Our passion and commitment is clear. We exist to improve the health of people and communities through innovation in TB and HIV integration.

Our Values

We believe in:

- *Integrity*
- *Excellence*
- *Teamwork*
- *Innovation*
- *Respect*

What **we do**

Our Focus

We are focussed on researching, supporting and implementing integrated approaches to managing TB and HIV.

We are a health care partner supplying expertise, experience and resources for informed health-related decisions.

We are proud to be:

Leading

Tuberculosis and HIV/AIDS research programmes:

- Extensive experience & internationally published research
- Unmatched clinical and epidemiological databases
- Policy-shifting results
- Practical disease management strategies
- World class vaccine research
- Advanced epidemiological modelling
- Health systems strengthening

Caring

Managing HIV/AIDS care & treatment access programmes:

- Prevention
- Wellness
- Counselling
- Anti-Retroviral Therapy programme implementation
- Innovative service delivery models

Managing

- Project management
- Data management
- Analysis and on-line web-based reporting

Evaluating

- Health systems monitoring and evaluation
- Peer reviewed publication
- Quality assurance

Training

Training of professionals and counsellors in:

- Basic TB and HIV/AIDS care
- Advanced TB and HIV/AIDS care
- Anti-Retroviral Therapy
- Programme design and implementation
- Epidemiology and statistics

Providing specialist services

- Our epidemiology, statistical analysis, study data management and psychosocial services also undertake projects in their own right, either for research and development objectives or as a consulting service to other organisations seeking specialist advice.
- Financial, administration, commercial and governance expertise is also available on a project or consultancy basis.

Contents

Corporate **Profile**

We are a proudly South African, public benefit organisation with over 12 years experience leading the response, treatment and research efforts to eradicate TB and HIV. We have been working quietly alongside government, the mining industry, among NGOs and in communities to better understand the epidemics and provide real solutions.

Our remit is to improve the health of people and communities through innovation in TB and HIV integration. With our knowledge and skills, we are best suited to achieve this by:

- Strengthening existing health care systems;
- Constantly innovating to improve the way things are done; and
- By doing research to determine the best ways and means of eliminating TB and HIV.

We do this with one aim – to make a differential impact – underpinned by an evidence-based track record of excellence in delivery against programme objectives which have a transformational impact on health in the communities in which we work.

Governance

Aurum is governed by a Board made up of executive and non-executive directors under the mandate of a founding memorandum of incorporation. Sub-committees are established in terms of the King III Report and the Board reviews its performance and that of the CEO on an annual basis.

Aurum is also subject to the internationally accepted business practice and ethical standards and norms that apply to human subject research. It will continue to adhere to these standards as an imperative, and this is monitored by the Audit Committee of the Board.

2010

Aurum **into the Future**

Early in 2010, we embarked on a rigorous strategic review process to ensure Aurum's relevance and sustainability into the future. With the guidance of Burlington Consultants we were able to clearly identify our competencies; our ever changing marketplace and the opportunities to achieve our mission – *to improve the health of people and communities, through innovation in TB and HIV integration.*

It was critical to us that no jobs were lost. In some cases, skills were redeployed to best suit the needs of a new structure and ensure the most cost-effective model. Staff were consulted and involved in "***Building our Legacy***" – our colloquial term for the new structure.

> Those involved in the process described it as "***all encompassing***" and "***not without blood, sweat and tears.***"

The result is a new, unified organisation more able than ever to deliver on our shared vision and mission. This new structure apportions work into two business units – Health Programmes and Research, an Operating Division and a number of core support service units including Data Management, Monitoring and Evaluation, Quality Assurance, Training and Clinical Care.

We have also consolidated our Health Programme efforts to focus on defined geographical areas to avoid duplication and ensure coverage of priority areas in the country. These areas are: Ekurhuleni North, Sekhukhune – Greater Tubatse, Greater Marble Hall (Ephraim Mogale), and Dr Kenneth Kaunda sub-district. We also have a number of virtual geographies in serving the Department of Correctional Services and our programme with general practitioners.

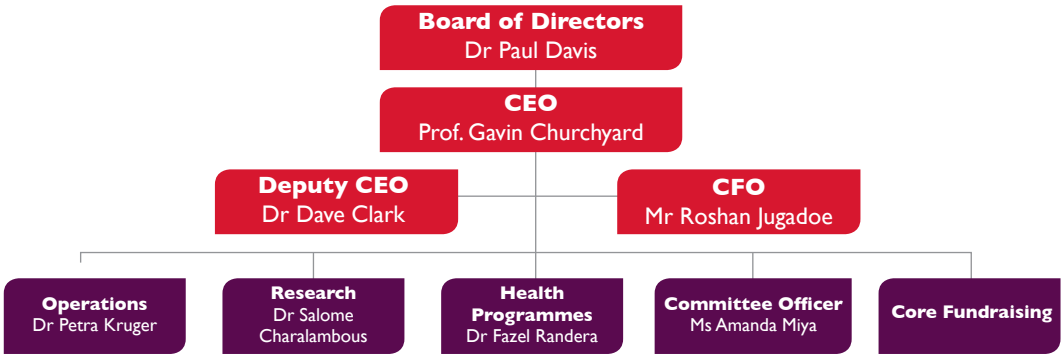
Our new strategy ensures we will:

- Maximize programmatic efficiency;
- Better align the programmatic and research units within Aurum; such that research informs what programmes are implemented and in turn programmes pose relevant research questions;
- Maximize the support offered by the cross cutting "Core Services"; and
- Offer an effective response to the call by PEPFAR and the South African Department of Health for developmental partners to support health systems strengthening in the Department of Health.

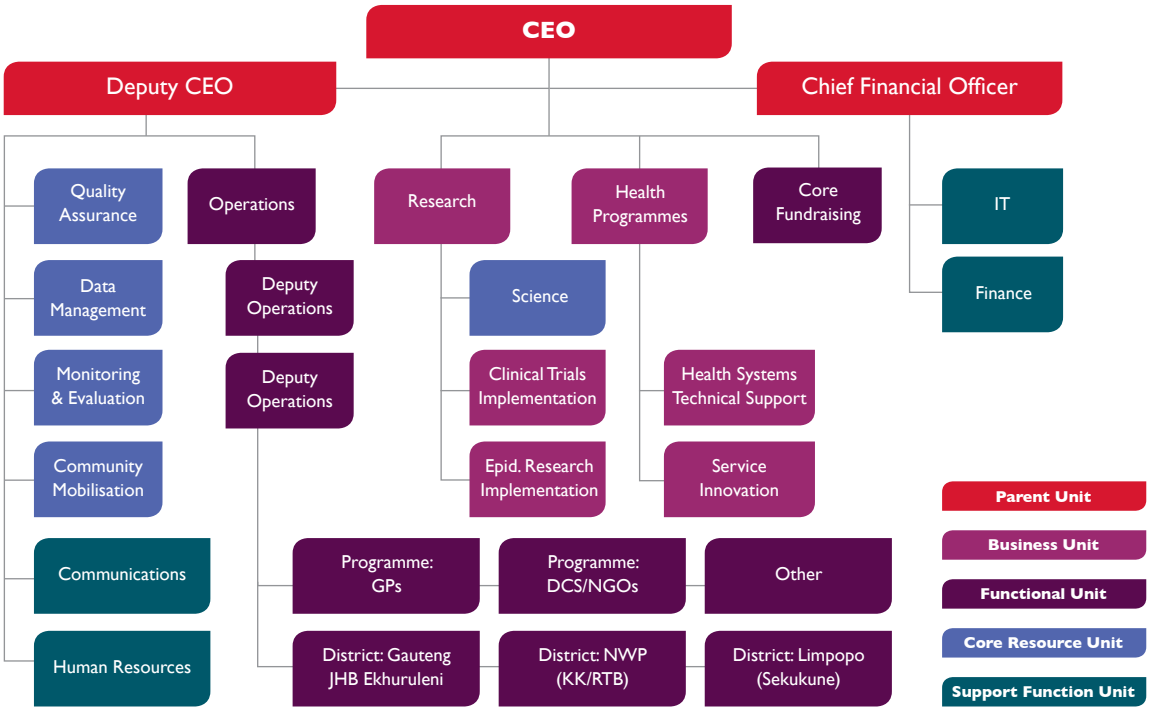
We feel exceptionally proud of the result and more ready than ever to deliver. We thank Burlington Consultants for their passion and drive in getting us to this exciting point of departure.

Organisational **Structure**

Leadership: Executive Committee (Exco)



Structure: Company



2010

Board of **Directors**

Chairman – Dr Paul Davis, MBBCh, DTM&H, DPH
Chief Executive Officer – Professor Gavin Churchyard, MBBCh, MMed, FCP, PhD
Deputy Chief Executive Officer – Dr Dave Clark, MBBCh, BCom, DHSM, MBA
Chief Financial Officer – Mr Roshan Jugadoe, CA(SA), BCom, PG Dip (Acc), ACMA

Non-Executive Directors
Mrs Christine McDonald, CA(SA), BAcc (Hons), CFO of the Market Theatre Foundation
Mr Gary Ralfe, MProc, BA, Ex Managing Director of De Beers Global Group
Ms Phangisile Mtshali, Diploma in Journalism, Public Relations Practice Certificate, Director : Bristol-Myers Squibb Foundation
Mr Ronald Gault, MA, Ex Ford Foundation
Mr Nigel Unwin, BA, CEO: Witwatersrand Hospice Association
Professor Yosuf Veriava, MBBCh, FCP, FRCP, PhD (Hon), Special Advisor to Vice Dean, Faculty of Health Sciences, University of the Witwatersrand


Dr Paul Davis


Prof. Gavin Churchyard


Dr Dave Clark


Mr Roshan Jugadoe


Mr Ronald Gault


Ms Phangisile Mtshali


Mr Gary Ralfe


Prof. Yosuf Veriava


Mrs Christine McDonald


Mr Nigel Unwin

Partners and **Funders**

International Partners

- Archivel Farma
- Columbia University
- Consortium to Respond Effectively to the AIDS and TB Epidemic (CREATE)
- HIV Vaccine Trials Network (HVTN)
- Institute of Community and Public Health (ICPH)
- International AIDS Vaccine Initiative (IAVI)
- International Epidemiological Databases to Evaluate AIDS (IeDEA)
- Johns Hopkins University
- London School of Hygiene and Tropical Medicine
- National Centre of Infectious Diseases
- National Institute of Occupational Safety and Hygiene
- New Jersey Medical School
- Public Health Research Institute (PHRI)
- St George's, University of London

Local Partners

- Centre for the AIDS Programme of Research in South Africa (CAPRISA)
- Mine Health and Safety Council
- National Department of Health SA
- National Department of Correctional Services SA
- National Department of Science and Technology
- National Health Laboratory Services (NHLS)
- National Institute for Communicable Diseases (NICD)
- Provincial Department of Health: Eastern Cape
- Provincial Department of Health: Free State
- Provincial Department of Health: Gauteng
- Provincial Department of Health: KwaZulu-Natal
- Provincial Department of Health: Limpopo
- Provincial Department of Health: Mpumalanga
- Provincial Department of Health: North West
- South African AID Vaccine Initiative (SAAVI)
- Toga Laboratories
- University of the Witwatersrand
- University of Cape Town
- University of KwaZulu-Natal
- University of Stellenbosch

Funders

- Aeras Global TB Vaccine Foundation (AERAS)
- Anglo American Chairman's Fund
- Archivel Farma
- Centre for the AIDS Programme of Research in South Africa (CAPRISA)
- Consortium to Respond Effectively to the AIDS and TB Epidemic (CREATE)
- European and Developing Countries Clinical Trials Partnership (EDCTP)
- European Union
- Foundation for Innovative New Diagnostics (FIND)
- HIV Vaccine Trials Network (HVTN)
- International AIDS Vaccine Initiative (IAVI)
- President's Emergency Plan for AIDS Relief (PEPFAR)
- South African AIDS Vaccine Initiative (SAAVI)
- Sanofi-Aventis
- Virax Limited

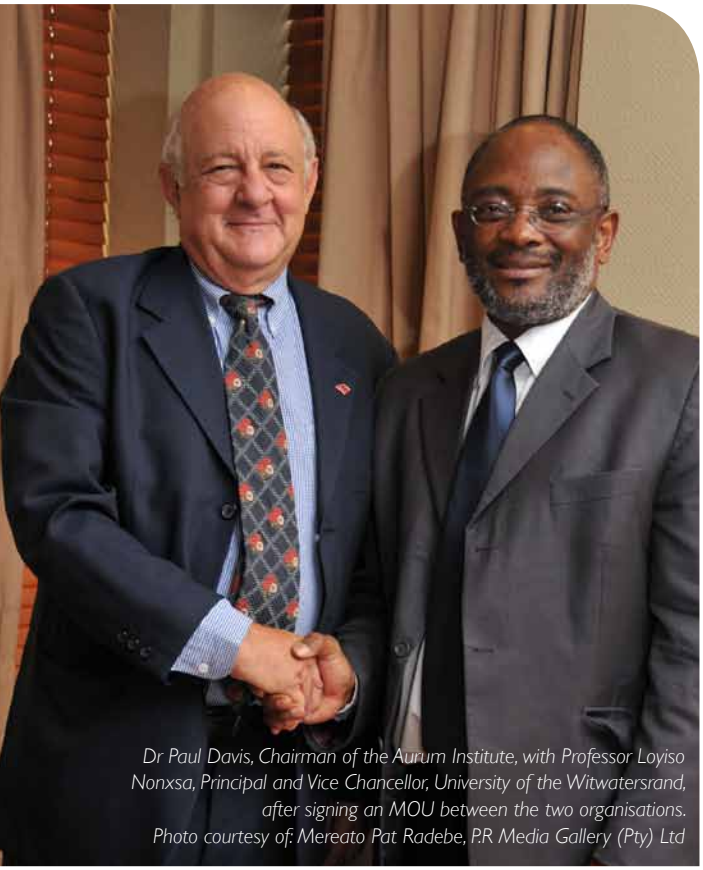
"Aurum is a formidable organisation with exceptional people and quality. It is not possible to overstate this."

Centre for Disease Control/SEAD Report, April 2009

Chairman's Letter

"Are you in earnest? Seize this very minute! Boldness has genius, power, and magic in it. Only engage, and then the mind grows heated. Begin, and then the work will be completed."

Jean Anouilh



Dr Paul Davis, Chairman of the Aurum Institute, with Professor Loyiso Nonxsa, Principal and Vice Chancellor, University of the Witwatersrand, after signing an MOU between the two organisations. Photo courtesy of: Mereato Pat Radebe, P.R Media Gallery (Pty) Ltd

"Boldness is a mask for fear, however great."

John Dryden

The creeping damage TB and HIV organisms cause to us is relentlessly driven by their own imperative to survive. They are vigilant, changeable, opportunistic and wily. They discern our peculiarities, capitalise on our weaknesses and respond to our attacks. Their existence is survival and survival their existence. (Ours we think is so much more.)

The slowness of their consumption of ourselves (eating us alive!) makes their progress imperceptible, undetectable. Our smugness or complacency only shattered when a critical mass is reached or target organ overwhelmed. Often too late for successful interventions.

Their guard doesn't slip. Ours might. That's our flaw!

There is progress on some fronts but overall it's far too slow. Whatever we might feel, the tide hasn't yet turned…. the 30 to 40 year World Health Organisation horizons set to eradicate the diseases are already falling behind.

The seriousness, and dare I say sexiness, of TB and HIV that gripped and propelled the concerns and interests of international organisations and politicians for the past twenty years seems to be tiring and changing.

The speak is now of 'health systems strengthening,' *and do we need it!* As well as eradicating Malaria and improving nutrition. But this should not deflect us from our TB/HIV focus.

It is an opportunity to do both.

The very means to combat TB/HIV, infant and maternal mortality, and lifestyle diseases can be used at the same time as the framework on which to build up the health services at the primary and district levels. So many of the issues and challenges are similar: logistics, health information platforms, skilled carers, training and capacity building.

Success at combatting the named diseases can be used as cogent markers for the measurement of the health systems progress.

This is also the time for concerted approaches, collaborations, alignments and support between the public and private sectors and within the public and private sectors themselves. No one sector is going to be able to accomplish this alone. It is the business of the whole society.

As with the 2010 World Cup Soccer slogan: *"Ke Nako! – It's time!"*

Are we bold enough? Are we fearful enough?

Paul Davis

Edward Mabutho worked in the mines for 12 years when he was released after a medical test showed he had TB and HIV. He is now very weak and gets assistance from home health care workers. This is the second time he has had TB and he complains that the health worker charged with delivering his medicine frequently fails to show up. Photo: David Rochkind

Chief Executive's **Review**

Aurum 2010:A time of change and celebration – "This Time for Africa!"

Professor Gavin Churchyard, Aurum Institute CEO.

For South Africa and the world, 2010 will be remembered for the successful World Cup Soccer. From a South African perspective we were united by a common purpose in hosting the "beautiful game". The FIFA 2010 World Cup Soccer was a defining moment in South African history. There were two official 2010 World Cup Soccer songs, "Waka Waka" sung by Shakira and Coco-Cola's official anthem "Wavin' flag" by K'naan and David Bisbal. Some of the words from these songs captured the essence of the World Cup but also of Aurum events in 2010. In my report for 2010, I have used an excerpt from one of the songs in each section that is particularly relevant.

Aurum's theme for 2010 was: "It starts with me, let's work together in the fight against TB and HIV" – highlighting that all Aurum staff have an essential role to play in achieving Aurum's vision of improving health of individuals and communities. For Aurum, 2010 was a year of change and celebration. I acknowledge both achievements and challenges for each of the programmes and departments in this report.

Aurum restructuring – "The pressure is on!"

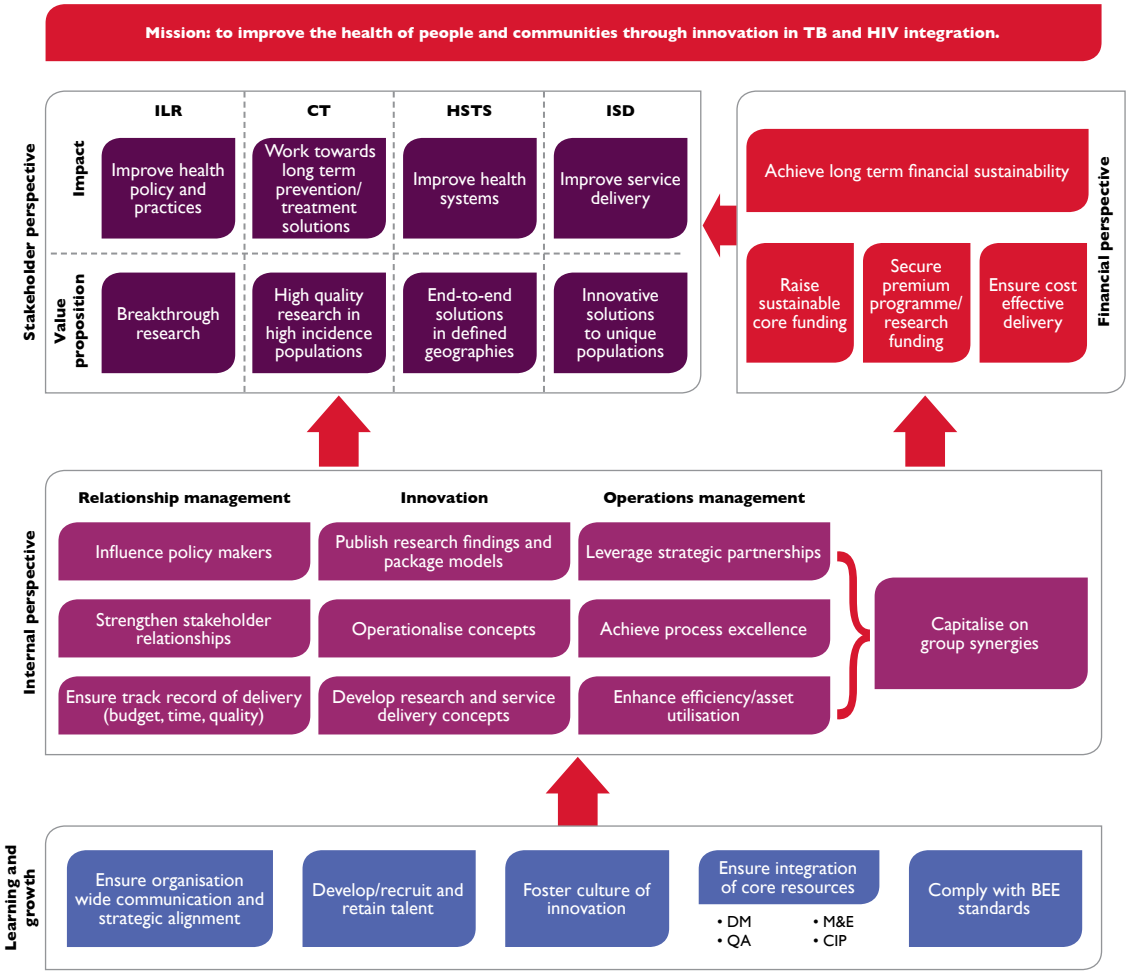
In order to build a sustainable, more efficient organisation, Aurum underwent a strategic review process in 2010 that culminated in a strategic roadmap *(Figure 1)* and new organisational structure *(Page 4)* to support synergy between business units and core support services, while continuing to embrace Aurum's values of Integrity, Excellence, Teamwork, Innovation and Respect.

The new structure is modelled on a matrix management approach and includes two business units, the Health Programme and Research units, supported by an Operations Division and core services.

The change in organisational structure and roles and responsibilities was communicated to staff through an internal campaign called "Building Aurum's legacy." The logo we designed was made up of Lego blocks to symbolise that we each contribute to Aurum's legacy one block at a time.

The change in organisational structure and roles and responsibilities was communicated to staff through an internal campaign called ***"Building Aurum's legacy."***

Figure 1: Aurum's Strategic Roadmap



Aurum staff were encouraged to embrace the change and work towards building an Aurum legacy they could be proud of. The new structure was formally introduced in October 2010, and not unexpectedly, resulted in high levels of stress throughout the organisation. But with commitment, perseverance, and good communication, the change was embraced. Allowing time for staff to settle into their new roles within the structure, I am confident that Aurum will continue to grow and have greater impact on improving health through technical support to the Department of Health and transformative research.

Research Programme – "You're on the frontline!"

The Research Unit, with executive leadership from Dr Salome Charalambous, was restructured with the establishment of a core group of senior scientists responsible for initiating and leading research which is then implemented by the Operations Division and managed by the two sub-units of the Research Unit, the Clinical Trials Unit (led by Dr Lynn Katsoulis) and the Epidemiology Unit (led by Dr Violet Chihota). The intent is to free up the scientists from operational responsibilities and allow them time to conceive and write grants for research proposals and to publish the results of their research. The aim is to do "Aurum-defining research" that will transform policy and practice with respect to TB and HIV – thus positioning Aurum at the "frontline" of research internationally.

The Research Programme has settled into the new structure and is making satisfactory progress. In total, Aurum had over 25 publications in 2010. Notable achievements include Aurum's contribution to a supplement in the journal *AIDS* on "Isoniazid preventive therapy for HIV-infected people: evidence to support implementation" which comprised:

- Results on the feasibility of implementing community-wide Isoniazid Preventive Therapy (IPT) among South African gold miners (the Thibela TB study);
- The role of community mobilisation, effectiveness of TB screening prior to starting IPT, safety of IPT;
- The combined effect of IPT on mortality;
- Barriers to IPT; and
- An opinion piece on the effect of IPT on mortality.

Other high impact publications included two papers in *The Lancet* ("Call to action to scale up TB diagnosis, management, control and research; a comparison of two community based TB case finding strategies in Harare"), two papers in *The Lancet Infectious Diseases Journal* ("Combined use of isoniazid preventive therapy and antiretroviral therapy to prevent TB", and "Opportunities afforded by new TB drugs"), and two papers in the journal *Thorax* ("Comparison of 6 vs. 12 monthly TB screening among gold miners" and "Excess lung function decline following TB").

Health Programmes Unit – "You paved the way!"

The PEPFAR programme in South Africa underwent a strategic realignment with the emphasis shifting from service provision to technical support to the Department of Health. Furthermore, in the new Aurum structure, the Health Programmes Unit has to "pave the way" by determining the needs of the Department of Health and set the strategic direction for the Operations Division and what needs to be implemented in the field.

Dr Fazel Randera led the Unit through these changes, which brought with them many challenges and opportunities. Aurum has had to embrace these changes which included withdrawing from some existing geographical areas of operations and moving into some new areas of operations and reskilling staff to provide technical assistance. Achieving a synergistic working relationship between the Health Programmes Unit that provides overall direction to the programme, and the Operations Division that is responsible for implementing the programme plan, was particularly challenging. The two working units have however emerged from this turbulent period stronger and now have a solid collaborative working relationship.

Operations Division – "You're a good soldier!"

The Operations Division is a newly established component of the Aurum structure that is responsible for the operational implementation of work emerging from the Health Programmes and Research business units. Under the leadership of Dr Petra Kruger, the Operations team are the "foot soldiers" that are responsible for delivering the outputs from programmatic and research interventions. Despite the challenges of starting a new department, the programme has had some early successes which include offering HIV Counselling and Testing and TB screening in support of the Minister of Health, Dr Aaron Motsoaledi, at the opening of a new HIV clinic at Rorke's Drift in KwaZulu-Natal.
The Operations Division also rapidly reorganised the various skills and talents within Aurum to align with the changing PEPFAR strategy mentioned earlier.

Mr Bulelani Kuwane, recipient of the 2010 Aurum Award.

Core Services – "This is your moment!"

Three new core services were established under the leadership of Dr Marianne Felix to support the business units and operations programme. These include: quality, monitoring and evaluation and training. In addition, a data management department was established under the leadership of Ms Trisha Crawford, drawing all the data management resources and expertise in Aurum under one roof to maximise future efficiency and effectiveness. Establishing these core services has been challenging due to inadequate human resource capacity and difficulty in finding skilled people to head some of the individual units. However, once they are firmly established and running smoothly, they will truly find their "moment" in the legacy of Aurum.

Support Services – "Today's your day!"

The strong support services that Aurum enjoys today have been built over time and Aurum is proud of what they have achieved.

The finance and IT departments were ably led by Mr Roshan Jugadoe. The financial status of Aurum has strengthened in the past year, with the creation of a more solid balance sheet to help the organisation weather the volatility that is the grant environment. The whole matter of governance and risk management was also strengthened to move closer to compliance with the King III report and good business practice standards.

Our IT system, championed by Mr Dirk van Schalkwyk, remains a backbone to Aurum's growth and development, and the envy of other NGOs. In the year ahead we will be implementing the SharePoint System to consolidate and codify organisational knowledge, improve collaboration and foster better communications between the various parts of the organisation.

Our people are always our greatest asset. The Human Resources Department remains central to Aurum, and under the leadership of Mr Sipho Tshabangu has numerous challenges in the pursuit of making Aurum an employer of choice in a scarce skills environment. Together with the Remuneration and HR Committee of the Board, the HR

Department has set out to update all the organisation's policies and procedures in line with current HR practice and legislation. They also keep abreast of employment conditions in the health sector to ensure that we can achieve our strategic goal of attracting and retaining key staff for the programme, research, operational and support divisions of Aurum.

Lastly, and by no means least, Aurum's communications and marketing department under Ms Helen Kisbey-Green needs to be commended for its presentation of Aurum to society, the management of the internet site, and the successful management of the numerous events, functions and trainings that took place during the year.

Annual Aurum Awards – "Your time to shine!"

Every year Aurum celebrates its achievements and acknowledges staff that embodies Aurum's values. The lively event was held at the Barnyard Theatre; we had an early taste of World Cup Soccer fever and left slightly deaf from all the Vuvuzelas that were blown! Mr Bulelani Kuwane was the well-deserved recipient of the Aurum Award.

World HIV and TB days – "You know it's serious!"

Despite South Africa having strong policies for TB and HIV, both epidemics remain "serious" public health problems. Aurum marked World TB and HIV days with events at Aurum-supported sites and head office.

Aurum's impact on policy and practice – "Everyone's watching!"

In 2010, Aurum contributed to formulating international, regional and national policy on intensified case finding and isoniazid preventive therapy for people living with HIV and among miners.

I was appointed as the Chair of the WHO/TDR Disease Reference Group for tuberculosis, leprosy and buruli ulcer in the last quarter of 2009. The first face-to-face meeting of the committee was held at the Aurum Offices in January 2010. The second meeting was held in Manila, Philippines, to finalise the first report and global research priorities for TB, leprosy and buruli ulcer. Dr Fazel Randera represented Aurum at the International Labour Organisation on TB in the workplace, whilst a number of staff presented Aurum's work and results at various international conferences and academic settings. Aurum played a major role at the South African TB conference. I was the Chair of the Clinical and Epidemiology track and Aurum delivered numerous oral and poster presentations. I was a member of the South African National AIDS Council Technical Task Team on TB/HIV that informed policy on TB and HIV.

Aurum's future – "People are raising their expectations!"

Although the restructuring process has been stressful, I believe that the new strategic roadmap and organisational structure will make Aurum even stronger and more sustainable into the future. As Aurum grows, so too will the expectations of others of Aurum.

"This time for Africa! This time for Aurum."

The whole world descended on South Africa for the first ever African Soccer World Cup. By all accounts the event was a spectacular success and the atmosphere pervaded every corner of society for months. The flags and banners, the paint and people, the drone of the vuvuzelas, and the moments and memories were carried by the media to the far corners of the globe. It was truly a time for Africa.

But the Cup has come and gone and as we return to the reality that is Africa, we are once again confronted by TB and HIV, the scourges which we seek to eliminate as our primary mission. Aurum continues to carry a "Wavin' Flag" of dedication to this task, a symbol of hope in making a difference to the communities in which we work.

I am once again extremely grateful to all the funders, partners, collaborators, colleagues and staff members who enabled us to achieve what we did, and made us what we are. Without our supporters, just like the World Cup, Aurum's mission in South Africa would not be possible. With your continued support, 2011 will be a proud and productive time for Aurum in the fight against TB and HIV.

Professor Gavin Churchyard

Health **Programmes**

The Aurum Institute TB and HIV Prevention, Care and Treatment Programme has been in existence since October 2002, with the first patient prescribed antiretroviral therapy (ART) by Aurum clinicians in November 2002. At this time, the programme was funded by the South African mining industry, primarily Anglo American. Since 2005, the programme has been independent of the mining industry, with funding from the President's Emergency Plan for AIDS Relief (PEPFAR).

The South African Government (National Department of Health – NDOH) made a ground-breaking announcement on World AIDS Day 2009 that, as from April 2010, formal NDOH accreditation as a pre-requisite for sites to initiate ART would cease, and all primary health care clinics would move towards becoming ART initiating sites, meaning trained Professional Nurses would initiate treatment and formerly down-referral sites would become sites where ART could safely be initiated.

To meet these critical deadlines, primary partners and sub-partners were requested to join the provincial authorities to bolster capacity at the District and Local level. In agreement with PEPFAR South Africa, Aurum has increased its partnership links with the NDOH in a number of identified Sub-Districts. Across the country, PEPFAR partners have been re-organised and rationalised to reduce overlap of support efforts and increase the reach of the PEPFAR effort, particularly to priority, underserved areas identified by the NDOH.

With PEPFAR funding, the Aurum team applied a two-pronged model to **(a) continue with direct service delivery, and (b) strengthen the health systems and develop the capacity within the public sector to enhance the service delivery through the DOH.** The overall objective is to strengthen the Basic Care Package (Pre-ART) and ART services within facilities, facilitate a comprehensive community programme in the clinic catchment areas, and collaborate with other partners operating within the Sub-District. The service delivery model includes the general practitioner network contracted to Aurum, and support to a number of state facilities including the Department of Correctional Services (DCS), and NGOs.

Working health systems are vital to ensure widespread use of effective health measures. Fundamentally, a working health system improves health. It delivers the right volume and distribution of services using good provider-client interactions. It operates at community, local, and national levels. A working health system demonstrates effective organisation and processes. It engages households, government, civil society, the private sector, donors, and global groupings and partners. It reaches priority groups, including the poor, women, children, urban and rural residents, and the acutely and chronically ill. It responds to people's needs, protects them from risk, and operates efficiently. It combats priority health issues such as tuberculosis, HIV/AIDS, and maternal, child, and reproductive health. It works fairly, responsively, and effectively, and offers choice. It employs appropriate incentives and is characterised by strong political will and a viable vision.

Health Systems Strengthening (HSS) is a continuous process of determining, planning, implementing, monitoring and evaluating changes in policies, guidelines, and management and professional practices within the health sector with the explicit aim of improved health outcomes.

For Aurum specifically, these processes are applied inasmuch as they relate to **TB and HIV.** A key principle is that any interventions or actions aiming at HSS should be undertaken based on systems thinking principles in an integrated approach and taking cognisance of all seven of the building blocks of health system architecture:

- Governance
- Information
- Financing
- Service Delivery / Infrastructure
- Human Resources
- Medicines and Technologies
- People

Care and Treatment Programme

Operating statistics

This table reflects figures for the reporting period (1 October 2009 to 30 September 2010) and some of what was achieved in the Aurum programme.

VCT	GP and NGOs	Public sector	Total achieved
Number of sites delivering the service	74	40	114
Number of patients received the service	4,671	69,970	74,641
No of staff trained to provide the service			360
Wellness			
Number of sites delivering the service	86	8	94
Number of patients received the service	21,351	24,912	44,043
Number of staff trained to provide the service	375	68	443
Number of staff trained to provide TB management services			298
ART			
Number of sites delivering the service	86	8	94
Number of patients ever received the service	13,146	26,934	41,337
Number of HIV-infected individuals who received cotrimoxazole prophylaxis	8,326	2,650	10,976
On ART at end of the period	8,407	21,389	29,796
No. of staff trained to provide the service			162
Number of newly identified HIV-infected individuals who were screened for TB	6,010	3,993	10,003

Aurum support included human resources, infrastructure and equipment, pharmacy, data management, training and quality assurance through programme monitoring.

Support Provided to the NDOH and Sub-Partners

Gauteng Province:

In consultation with PEPFAR, the Gauteng Department of Health allocated Ekurhuleni North Sub-District (Ekurhuleni Metro District) to Aurum as the lead partner. Aurum is required to strengthen the Basic Care Package (Pre-ART) and ART services within facilities, facilitate a comprehensive community programme in the clinic catchment areas, and collaborate with other partners operating within the Sub-District. Aurum has been working with the Sub-District since 2008 in Tembisa Main Clinic, Tembisa Masakhane Clinic and Winnie Mandela Clinic. In addition to these, Aurum was directed to partner with the Sub-District in all twenty-four clinics (under both the DOH and the District / Municipality).

Chris Hani Baragwanath Hospital (Soweto, Johannesburg Metro District)

This is a large provincial hospital situated in Soweto with over 5,000 patients on antiretroviral treatment. Aurum supported the adult clinic (Nthabiseng) as well as a small clinic opened in the psychiatric wing of the hospital (Luthando) to cater for HIV patients with diagnosed mental illness. Aurum support included human resources, infrastructure and equipment, pharmacy, data management, training and quality assurance through programme monitoring. As part of the re-organisation by PEPFAR and the NDOH aforementioned, Aurum agreed to a staged withdrawal from these sites, with simultaneous hand-over of the clinics to another partner appointed to that district by June 2011. This includes consultations with the on-site staff, the newly-appointed partner, the DOH and the hospital executive.

Metro Evangelical Services (MES) Impilo (Inner City, Johannesburg Metro District)

Aurum partnered with this NGO to provide care and treatment for the homeless and migrants in Hillbrow, Johannesburg, providing a clinic facility for the treatment and management of TB and HIV. Aurum provided clinical support to the clinic, the laboratory and medication, plus quality assurance through programme monitoring.

Bree Street Taxi Rank (Inner City, Johannesburg Metro District)

The Bree Street Taxi Rank, one of the busiest taxi ranks in the country, has over 50 shop owners, 500 informal traders, 5,000 taxi operators and as many as 500,000 commuters arrive or depart from here each day. Once established, the centre was soon recognised as a safe, convenient place for health advice, including TB screening and HIV Counselling and Testing (HCT). TB- and HIV-positives are referred to government clinics. From the base at Bree Street, Aurum counsellors also worked closely with youth clubs, sports groups and life orientation classes at 14 schools to improve understanding, knowledge and recognition of TB and HIV. In the latter part of the year, the mobile prevention team relocated to Ekurhuleni North, while the remaining team continued to focus on the Bree Taxi Rank population.

Gauteng Department of Correctional Services (DCS)

The Aurum Institute has been working in collaboration with the Department of Correctional Services health programme since 2006. A regional MOU with the DCS (Gauteng), ensuring a standard agreement for all correctional centres within Gauteng, was revised to take account of the new directives from the NDOH as well as the additional centres in Gauteng for which Aurum would be responsible. The five centres in the 2009–2010 period remained with an additional three added in the last quarter of 2010 (Baviaanspoort, Zonderwater and Modderbee). Among the responsibilities, Aurum was to facilitate the withdrawal of another partner in Modderbee with hand-over to Aurum by June 2011.

Aurum provided support services to DCS sites (Johannesburg, Pretoria, Krugersdorp, Boksburg and Leeuwkop), which included assistance with infrastructure, equipment and furniture, training, data management and pharmacy support.

Aurum personnel have been involved in:

- The implementation and training of correctional services staff on the use of the TB and HIV clinic data collection forms;
- Training nurses to initiate treatment and setting up the mentoring process to ensure patient care and management;
- Preparation for electronic data management, with a database installed and functioning at the Pretoria and Johannesburg facilities to ensure the recording of individual patient data;
- Facilitating the monitoring and reporting of the TB and HIV programme;
- Clinical support to guide site doctors and nurses on clinical cases and the distribution of up-to-date treatment guidelines and protocols; and
- Quality assurance of TB/HIV care prescriptions.

In the last quarter of 2010, nurses were trained to initiate and manage ART. Medical staff were trained in all aspects of TB and HIV/AIDS, including HCT, ART, running support groups, peer education on HIV and TB, and TB diagnosis and treatment. Aurum strengthened TB/HIV collaborative activities with a model of TB/HIV integration in all correctional facility healthcare sites.

Eastern Cape Province:

As part of the re-allocation by the DOH, Aurum agreed to a staged withdrawal from Amathole Sub-District, with a simultaneous hand-over of the clinics to another partner, appointed to the Sub-District, by June 2011. This included consultations with the on-site staff, the newly-appointed partner, the DOH and funder.

North West Province:

In discussion with PEPFAR and USAID, the North West Department of Health allocated the community based work in Dr Kenneth Kaunda District to Aurum. As such, Aurum is required to develop a comprehensive community programme in the District and to collaborate with other partners operating within the Sub-District, particularly regarding withdrawal from facilities where we have been involved up until now, with simultaneous hand-over to another partner, by June 2011.

Limpopo Province:

As part of the re-organisation of PEPFAR, the Limpopo Department of Health allocated Greater Tubatse Sub-District (Greater Sekukhune District) to Aurum. As such, Aurum is required to strengthen the Basic Care Package (pre-ART) and ART services within agreed Sub-District clinics, develop a comprehensive community programme and collaborate with other partners. Aurum has been working with the Fetakgomo Sub-District since 2008, in MathaBatha Clinic, Motsepe Clinic, Mecklenburg Hospital and Lebowakgomo Hospital up to this point. A staged withdrawal from these facilities with simultaneous hand-over to the appointed partner by June 2011 has necessitated extensive consultations with the funders, on-site staff, the DOH and the appointed partner to hand over the sites in an orderly fashion whilst we take over our new role.

Multi-Provincial Partners: Independent General Practitioners (GPs)

Since 2006, Aurum has driven the GP network to service TB- and HIV-positive patients with no access to public sector ART sites and as a resource that could be better utilised for HIV services and aligned – if not incorporated – into the public sector service delivery chain. A highly structured model, the Aurum GP programme signs contractual agreements whereby GPs are required to attend training, apply guidelines and report on patient information. To ensure sustainability, Aurum partnered with Faranani Solutions (a network of GPs from a previously disadvantaged population) and independent GPs in all provinces. Early results indicated that this model achieves 80 percent viral suppression and 80 percent retention of patients. Aurum also found that GPs were able to follow guidelines and to collect data when required. In 2010, the first detailed audit of the sites was conducted, with the findings and recommendations implemented in the same period. This audit has given a number of important insights as to how a comprehensive GP programme would have to be optimised if it were to be expanded. Also, a number of sites that were no longer viable, were closed down with any remaining patients in those practices transferred to public sector sites.

Additional Sub-Partners involved in the GP Programme and Research Division activities include:

S Buys Script-Wise

From programme inception, S Buys Scriptwise was contracted for the procurement, dispensing and distribution of medications and the provision of pharmacy support at the Chris Hani Baragwanath Hospital and in the General Practitioner Project. In consultation with the Chris Hani Baragwanath hospital management, this support was terminated in 2010.

Toga Laboratories

From programme inception, Toga was contracted for laboratory testing. Toga led a negotiation with Bayer to secure reduced pricing for viral load testing for the Aurum programme; and piloted a new initiative to place point-of-care lactate tests at some PEPFAR facilities to facilitate early recognition of ART adverse events.

MediKredit

Aurum contracted MediKredit to electronically manage payment claims for consultations, prescribed medicines and blood tests for its project partners, enabling sites to better manage their finances and ensure cost-effectiveness. In 2010, 99 percent of the contracted GPs agreed to the MediKredit web-based claiming system.

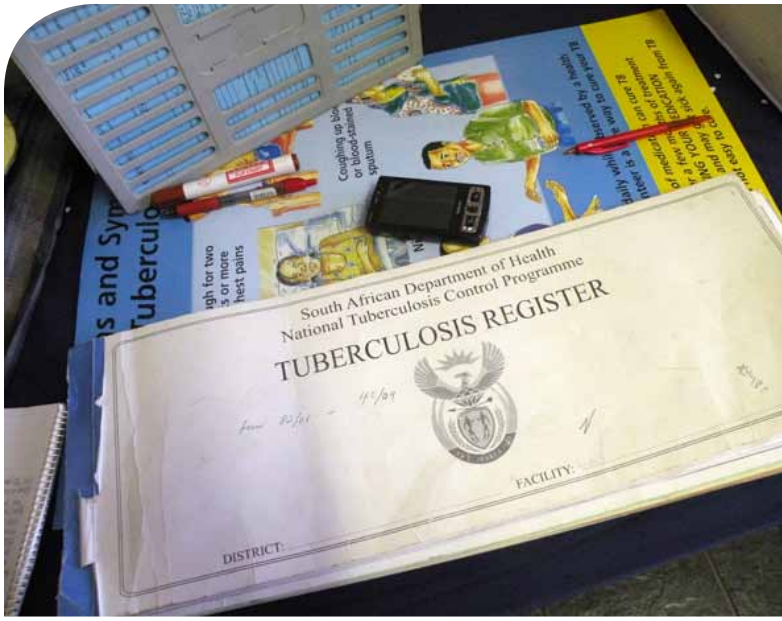
Kimera Solutions

An independent clinical consultancy with a focus on building capacity in resource-poor settings, Kimera provided specialist HIV clinical support to doctors through training and on-site mentoring with regular site visits.

Cross-Cutting Programme Areas:

Prevention, including HCT and TB Screening

Despite alarmingly high rates of TB and HIV infection in 2008, access to health services and treatment remained low in the country, especially for marginalised workers. With a PEPFAR grant, Aurum established the prevention programme to make health services more accessible to this critical population.



The programme began at the Bree Street Taxi Rank, in inner City Johannesburg, aforementioned. Most importantly to note, once established, the centre was soon recognised as a safe, convenient place for health advice, including HCT and TB screening. And, perhaps of greatest interest, our work in this period indicated that taxi drivers and informal traders had lower levels of HIV infection than the general population while approximately 33 percent of domestic workers coming to the Centre for testing are HIV positive.

The programme expanded to all Aurum-supported sites, including Klerksdorp and Rustenburg, with mobile health units providing services to Small to Medium-sized Enterprises (SME) employees, taxi drivers, and commuters. The Burgersfort team initiated the mobile health unit services in February 2009 for SME employees, taxi/truck drivers and contract workers from the mining industry. During the year, we engaged extensively with Municipality and Provincial Government and established ourselves as a reliable partner and service provider; and worked closely with the Burgersfort Clinic with outreach work to farms in the surrounding areas.

Overall, people were *seeking us out* – because they heard and trusted we could provide a necessary service, suggesting a definite *niche* for these particular services, attributable to the ways in which it is offered and the places in which it is offered.

Aurum developed a system for HCT with guidelines aligned to those of the SA Government. The HCT programme included pre- and post-test counselling and two rapid finger-prick tests while the TB screening and sputum collection and diagnostics are those guidelines from the DOH. The programme was implemented with private GPs, in community clinics, through a centralised support system which included ART guideline provision and maintenance, training of all levels of healthcare workers in HIV counselling, clinical management, and administrative support through site visits by staff involved in psychological support, training, clinical support and monitoring, a data management system with standardised collection with unique identifiers for every HIV test, centralised distribution of test kits, and a quality control programme to distribute pre-tested samples to sites for quality assurance.

Clinical Care and Support

The work of the Clinical Support Department ensured accuracy of clinical and administrative data from treatment sites. This involved evaluation of between 20 and 100 treatment change prescriptions, and adherence to treatment guidelines three to four times a week, and resolution with prescribing doctor, no contra-indications to the use of the intended treatment, and adherence to treatment guidelines, ensuring that intended treatment option achieves virological success without compromising the patient's future treatment options **(a crucial matter in the light of limited resource settings)**. Administrative materials were updated, printed and distributed. All ARV scripts were checked by Aurum doctors, ensuring guideline compliance and good clinical understanding by doctors. Adverse event reports were compiled by Aurum staff and reported to pharmacovigilance centres when they arose.

Psychological support

A full-time psychologist provided technical and professional support to partners and healthcare workers, to training courses and to all staff working on the programme. The area of mental health in HIV-infected patients was investigated and training of clinic nurses in this critically under-resourced area will commence in 2011.

TB and HIV Integration:

In 2010, a number of initiatives were undertaken to augment the TB-HIV integration in the programme. TB and HIV activities in the Aurum PEPFAR programme included:

- **Diagnosis and treatment of TB in the HIV-infected:** when initiating the ARV programme or the HIV Wellness (Basic Care) programme, symptom screening (symptom screen, chest radiograph and sputum collection) was conducted by trained nurses;
- **Provision of INH therapy** (daily preventive therapy for six months after exclusion of TB, repeated every two years to patients with no prior history);
- **Routine screening of HIV-infected patients** for TB was investigated and findings used to revise the visit forms – patients screened on entry and at ART initiation and review of screening to identify gaps and evaluate the completeness and effectiveness of TB screening;
- **TB Study:** a study in the Department of Corrections (Johannesburg facility) examining TB screening of newly enrolled and currently incarcerated prisoners;
- Incorporating and/or aligning **DOH protocols and guidelines** including the HCT protocol to include TB symptom screening at the time of HIV testing;
- **Design and implementation of the TB infection control monitoring tool** with on-site training on infection control, followed by site monitoring visits to guide and assist with TB infection control; and
- **Training** on WHO Infection Control Guidelines has been included in refresher training and WHO Guidelines distributed to all sites.

URC Grants – TB and HIV Integration:

Also in 2010, URC/USAID awarded two grants to Aurum:

- A one-year project aimed at strengthening the implementation of TB/HIV collaborative activities with a special focus on the 3Is – Infection Control, Intensified Case Finding, INH Prophylactic Therapy – at primary care clinics in Mathjabeng Sub-District (Lejweleputswa District, Free State Province). Strengthening the implementation of the 3Is is enacted through:
  - A baseline assessment of TB/HIV services in the sub-district;
  - Raising awareness of TB/HIV co-infection among healthcare workers and communities;
  - Training for government healthcare workers in TB/HIV care;
  - Mentoring and ongoing support of healthcare workers;
  - Support for recording and reporting of TB/HIV activities in the sub-district; and
  - Evaluating effect of providing enhanced TB/HIV services on the key indicators for TB/HIV collaborative activities.

- A one-year project aimed at TB screening, detection and management in health facilities of the Department of Correctional Services (DCS) and follow-up of household contacts of newly-diagnosed TB offenders in the Rustenburg Sub-District (Bojanala District, North West Province). This project is delivered through:
  - Improved TB screening of all new admissions;
  - TB understanding, knowledge and education in facility health workers and offenders;
  - Improved HCT in patients diagnosed with TB;
  - Improved TB screening in all HIV-infected patients;
  - Isoniazid preventive therapy (IPT) in eligible HIV-infected patients;
  - TB infection control in correctional facilities, including isolation of newly-diagnosed infectious patients;
  - Improved follow-up of TB and HIV-infected offenders once released from the facility to ensure successful integration into community health services; and
  - Improved follow-up of TB-infected contacts for referral to community health services.

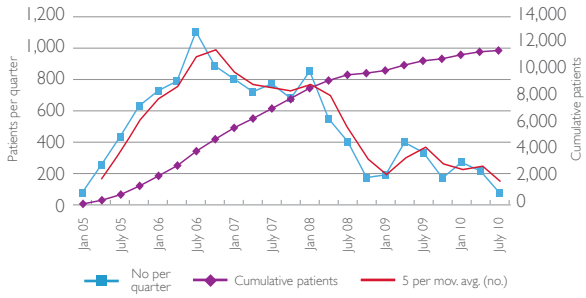
TB Community Contact Tracing

Household TB contact tracing project: this project was piloted in 2009 in partnership with the North West Province Department of Health in the Rustenburg sub-district. The project traced index patients, identified with smear-positive TB at eight Primary Health Centres, to their homes. Aurum nurses offered health education on TB and HIV to family members, screened household members for active TB disease and offered them on-site HCT. Clients were then referred to the appropriate health facility as the need arose. The success of the project was noted by the funder and the NDOH and, in late 2010, approval was granted to roll-out in Ekurhuleni North (Gauteng), Dr Kenneth Kaunda (North West Province) and Greater Tubatse (Limpopo).

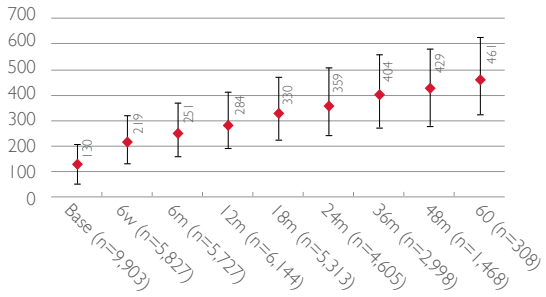
Key Results of Aurum-assisted sites: public sector sites not included

	Total
Patients ever started on HIV programme	21,351
Patients currently on HIV programme	10,926
Ever started on ART	13,146
Remaining on ART	8,407
Stopped ART	4,739
Ever on CMX/DAP	11,974
Currently on CMX/DAP	6,237
Ever started on INH	1,612

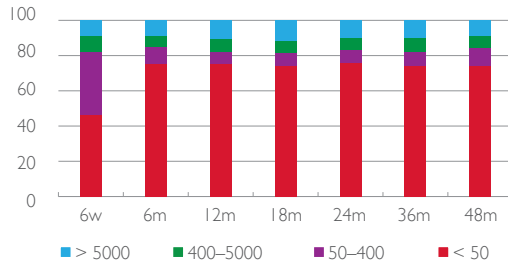
ART stats per quarter



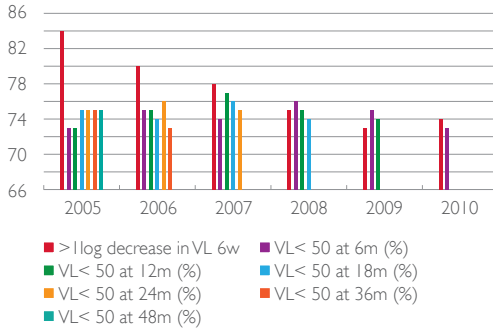
CD4 Response (cells/ml)



Viral load response (% by copies/ml)



Viral load cohort analysis (% by copies/ml)



Independent Private Practitioner site registrations by Province

Province	*Patients ever on the HIV programme*	*Patients currently on the programme*	*Patients ever started on ART*	*Patients currently on ART*
Eastern Cape	116	37	59	26
Free State	1,860	951	1,163	750
Gauteng	13,548	7,080	8,341	5,521
KwaZulu-Natal	40	11	35	11
Limpopo	1,408	714	835	466
Mpumalanga	304	162	210	128
North West	1,655	754	904	520
Northern Cape	100	20	31	12
Western Cape	105	31	51	24
Total	***19,136***	***9,760***	***11,629***	***7,458***

Faranani Private Practitioner site registrations by Province

Province	*Patients ever on the HIV programme*	*Patients currently on the programme*	*Patients ever started on ART*	*Patients currently on ART*
Free State	102	48	67	43
Gauteng	1,023	542	653	415
Limpopo	562	254	350	202
Mpumalanga	271	181	236	163
North West	257	141	211	126
Total	***2,215***	***1,166***	***1,517***	***949***

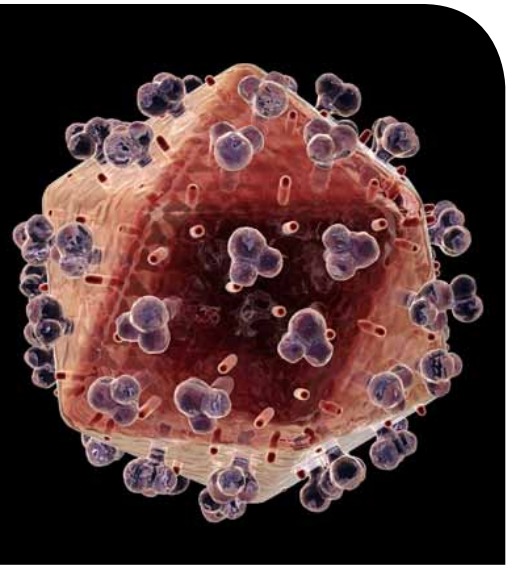
Acknowledgements

The progress made thus far is owed to the committed, reliable and passionate work by our donors, partners and sub-partners, colleagues and employees. The programme results illustrate the important role of public sector, general practitioners and NGO clinics in the national HIV/AIDS and TB programme. The GP sites are encouraged to build relations with their local DOH facilities as encouraged by the donors, ensuring sustainability and ease of patient transfer when the need arises. Aurum will continue to develop TB and HIV integration approaches.

Thank you to our partners and sub-partners

The Aurum Institute takes this opportunity to thank all its partners and sub-partners for their contribution in achieving the targets over the last five years. Your support and patience is highly valued and we look forward to achieving even more in this fight against TB/HIV and AIDS in the future. We would also extend our thanks to PEPFAR though the CDC and URC for the support provided for patients in need and enabling the Aurum Institute to support the South African national programme.

Research



The year 2010 will surely go down in history as the year landmark research findings started to change the face of the TB and HIV epidemics in South Africa.

In the field of HIV prevention, some new tools to prevent new infections were shown to be effective. Two landmark studies published this year have shown that different modes of antiretroviral drug administration are able to achieve protection against HIV. The recently published Caprisa 004 trial of tenofovir 1% vaginal gel, an antiretroviral microbiocide, reduced HIV incidence by 39 percent in women over 35 years compared with a similar number of women who received a placebo gel. In another study of 2,500 homosexual men, tenofovir and emtricitabine (another antiretroviral drug) administered as an oral pre-exposure prophylaxis (PREP), achieved a forty-four percent reduction in HIV acquisition in the experimental group.

In the field of HIV treatment, this year marked the change of South African national guidelines to include pregnant women and TB patients with higher CD4 counts (< 350cells/µl) in antiretroviral therapy programmes and a move to newer, less toxic regimens using tenofovir, the same drug which proved to be so effective in preventing HIV.

In the fight against TB, the confirmation of the use of Xpert MTB/RIF, an integrated automated molecular test for the detection of mycobacterium tuberculosis and rifampicin resistance conferring mutations directly from sputum, is an extraordinary advance in TB diagnostics. This test is able to detect tuberculosis in 67 percent of those who have it. This is a substantial improvement on the most commonly used modality, TB microscopy, which detects TB on average, in approximately thirty percent of those who have it. Other advantages of this test are the low potential for cross-contamination of specimens, minimal hands-on time, minimal training, minimal infrastructure required and low safety risk. The challenges with this new diagnostic technique are instrument and test pricing, yet this development is likely to change the face of TB diagnostics forever.

Aurum's New Research Department

It is in this renewed climate, that Aurum recently launched its new strategy and Aurum's new Research Department was born.

"Sound strategy starts with having the right goal."

Aurum's new strategy is based on the goal of ensuring that we make a differential impact on the burden of TB and HIV in South Africa and other developing countries. The new Research Department, established in October 2010, is based on the principle that our scientific leaders need to be focused on scientific aspects of their work rather than operational issues. They are given enough time and space to keep up-to-date with new developments in their fields, be abreast of new funding opportunities and develop strategic collaborations. As part of our capacity building strategy, the scientists are also expected to mentor and train less established researchers to enable them to write manuscripts and initiate their own projects.

In addition, the research department has established specialised clinical trials and epidemiology units to achieve the highest standards and to ensure cost effective implementation across Aurum sites. The aim of these units is to develop guidelines and standards for the conduct of clinical trials and epidemiological studies respectively, as well as to provide specialist oversight of these research projects throughout Aurum.

Science Directorate

Aurum's Science Directorate is responsible for attracting grants that lead to transformational research. It is envisaged that this entity, made up of senior scientists with experience and expertise in their fields, be dedicated to providing support for and writing grant applications, provide technical input to their research projects and dedicate time to disseminating their research results. This directorate is also responsible for providing technical input to health programmes and capacity development of junior researchers and project managers within Aurum.

Two scientists make up the senior scientific core, namely Dr Chris Hoffmann and Dr Mary Latka. The Klerksdorp Site Principal Investigator, Dr Kathy Mngadi, Dr Tendesayi Kufa, and Dr James Lewis (seconded from the London School of Hygiene and Tropical Medicine) make up the balance of Science Directorate.

Clinical Trials Unit

The formation of the Clinical Trials Unit, headed by Dr Lynn Katsoulis, who comes to us with a wealth of clinical trial experience, will provide support and assistance to the three clinical trials sites run by Aurum. In the latter months of 2010, this unit was formed and began to consolidate all procedures within the company in order to provide a standardised system for clinical trials.

Our Klerksdorp clinical research site, still Aurum's clinical trials flagship site, was renovated in 2010 and was proudly renamed the "Gavin Churchyard Legacy Centre." During the year, this centre continued with long-term follow-up of volunteers enrolled into our two HIV Vaccine Trials Network (HVTN) studies. A new trial, in partnership with CAPRISA, started enrolling participants in the first microbiocide trial that has ever been done by Aurum, known as the "VOICE" trial. "VOICE" – "Vaginal and Oral Interventions to Control the Epidemic" – refers to a five-arm, randomised trial which is being conducted in 17 sites around the world in over 5,000 women. The trial aims to determine the effect of tenofovir in reducing HIV incidence given in various forms including oral formulations and combination regimens with emtricitabine. Aurum's contribution to this trial will be 300 participants.

Also during 2010, preparation began for the two sub-studies of the "VOICE" trial, the MTN015 and the MTN 016 studies, which focus on patients enrolled on the "VOICE" trial who seroconvert and become pregnant respectively and two further Phase I vaccine studies to begin in 2011 at the Gavin Churchyard Legacy Centre.

Further work on HIV prevention is being done at our Rustenburg clinical research centre which, although experiencing challenges in retaining a stable funding stream, has been successful in processing high volumes of participants with excellent data quality. The protocols currently being conducted at the site include:

- A cross-sectional and prospective study to evaluate methodologies for the measurement of HIV incidence and detection of acute HIV infection in Rustenburg, South Africa, *FHI Protocol 10080;*
- A prospective observational cohort study to determine HIV incidence among a high risk sample in Rustenburg, South Africa *IAVI Protocol 'B';*
- A prospective, observational multi-centre study to evaluate laboratory, clinical immunologic and viral markers of disease progression in recently HIV-infected volunteers, *IAVI Protocol 'C'*; and
- Preparing for adolescent HIV vaccine trials in South Africa: A multi-centre study to evaluate acceptability of the HPV vaccine in adolescents, *EDCTP SASHA Protocol.*

The preparatory work being conducted at the site has yielded some interesting results, many of which have been submitted as abstracts to the southern African AIDS Conference in 2011.

In 2011, the site will embark on a large microbiocide trial which is a wholly African initiative with partial funding from the South African government. This trial is expected to confirm results of the Caprisa 004 trial done in Durban earlier. The Rustenburg site will be one of five South African sites and will enrol 350 participants.

There have also been exciting developments in the field of TB vaccine research in 2010. Firstly, Aurum started the first TB vaccine trial in HIV-infected adults in the world at our Klerksdorp site. The AERAS-402 trial, is a phase II double-blind randomised, placebo-controlled study to evaluate the safety and immunogenicity in HIV-infected, BCG-vaccinated adults. The first group of 26 patients have been enrolled and are currently in follow-up. The next group of approximately 100 participants will be enrolled in the second group of this trial.

Secondly, Aurum was successful in obtaining a grant to lead a TB vaccine trial. This is a Phase II trial to investigate the safety and immunogenicity of the H1/IC31, an adjuvanted TB subunit vaccine, in HIV-infected adults. This trial will commence in June 2011 at the Aurum Tembisa clinical research site and a research site in Bogomoyo, Tanzania. It will be first time that this vaccine is tested on HIV-infected individuals.

On the TB treatment front, the enrolments into a TB treatment trial, the Rifaquin trial, have continued at our Tembisa site. This is an international, multicentre controlled clinical trial to evaluate high dose *RIFApentine* and a *QUINolone* in the treatment of Pulmonary Tuberculosis. The results of this trial may indicate whether it will be possible to reduce the duration of

Aurum was successful in obtaining a grant to lead a TB vaccine trial.

treatment for patients for TB making it less burdensome, which is expected to also improve adherence. Aurum is one of five sites enrolling participants onto this trial with 300 patients expected to be enrolled by the end of June 2011. This period will then be followed by continued monitoring of our patients for an 18-month period to determine whether the treatment has been successful. Results of this trial are expected at the end of 2012.

We anticipate starting another TB treatment trial in April 2011 at our Tembisa site, also looking at reduction in duration of treatment of TB, known as the Remox trial.

Epidemiology Unit

An exciting development at Aurum is the amalgamation of all previous epidemiology projects, the HIV prevention and ART treatment research and the TB prevention and diagnostic research departments into one Epidemiology Unit. Dr Violet Chihota, previously running sub-studies in the Thibela TB project, is leading this Unit. With many of the new projects in the preparatory phases, this is an ideal time for implementing the new structure and ensuring standardisation across all these projects.

The year started on a high note for the research department with a presentation given by Dr Craig Innes at the Conference on Retroviruses and Opportunistic Infections (CROI) showing a reduction in mortality in HIV patients on antiretroviral treatment when using isoniazid preventive therapy (IPT) compared to those on antiretroviral treatment (ART) not using isoniazid. This retrospective analysis of 3,270 individuals started on ART in a workplace programme showed a 49 percent reduction in deaths after starting ART in patients also receiving IPT when controlling for other factors that may have influenced mortality. This is the first study that shows this marked effect of IPT on mortality in patients on ART. These findings influenced the South African guidelines for IPT, so that patients on ART are no longer excluded from receiving INH. Other presentations done at the CROI conference were done by Dr Chris Hoffmann and Dr Victoria Johnston on the effects of cotrimoxazole preventive therapy and viremia on mortality, and early and late predictors of mortality in patients on ART respectively.

Another highlight was the 2nd Southern African TB Conference where Dr Rebecca Lester presented from her Masters project on "Barriers to implementation of isoniazid preventive therapy in HIV clinics." Also, Dr Adams Tongman, the TB/HIV Manager who is part of Aurum's Health Programmes Unit presented "Feasibility, acceptability and yield of tuberculosis household contact tracing within Rustenburg sub-district municipality." A poster presented at the conference on "Preventing Tuberculosis in the workplace: The health care worker's perspective" describing results from a survey was conducted to describe the knowledge of tuberculosis infection control and attitudes towards preventing the risk of tuberculosis health care workers in 10 clinics in South Africa.

The focus of the Epidemiology Unit has been along three project areas: a) TB prevention and diagnostics; b) HIV prevention; c) HIV Treatment; and d) TB-HIV integration.

In the field of HIV prevention, under the guidance of Dr Mary Latka, a number of exciting projects are being conducted. One study conducted among a workforce of coal miners in South Africa, evaluated the effect of a well-resourced, universal testing program on the annual incidence of HIV. This study investigated the effect of prevention activities over time and high VCT uptake on HIV incidence over five years. This study has been submitted for consideration to the International AIDS Conference in Rome which is planned for July 2011.

Adult medical male circumcision (MMC) decreases men's risk of HIV acquisition by half but is under-utilised in South Africa. Some preliminary work to understand attitudes of men to circumcision has been started. In one such study, we compared characteristics of men who expressed interest in a referral for MMC with those who did not, in Rustenburg, South Africa. The study showed that two years after establishing the protective effects of MMC, men were largely unaware of its benefits, and less than half were interested in a referral. In those who expressed interest in a referral, very few accessed it. This team is planning to continue work in this field and investigate new ways in improving uptake of circumcision.

Men who have sex with men (MSM) have been overlooked in Africa and little is known about their HIV-related risk factors, especially outside large urban areas. The Rustenburg research team have become aware of a large population of MSMs in Rustenburg. Some initial work done includes a comparison of HIV-related risk behaviours between men who either self-identified as MSM or reported such behaviours, and men reporting neither (presumed men-having-sex-with-women MSW) in Rustenburg, South Africa. Continued work is being planned for this population in 2011.

Aurum has been involved in HIV treatment programmes in a variety of settings since 2003. In 2010, epidemiological projects focussed on the various models of delivery and investigated the various factors that may influence outcomes in patients on antiretroviral therapy (ART). Dr Salome Charalambous focussed on measuring health system factors that may influence patient outcomes in various sites supported by Aurum. To complement these activities, work on understanding outcomes of patients started on ART at private practitioners and in prison settings is also being conducted. More in-depth work into HIV treatment has been done by Victoria Johnston who is a Wellcome Trust fellow from the London School of Hygiene and Tropical Medicine on HIV treatment and treatment failure and resistance. These projects comprised both qualitative and quantitative work to understand predictors of failure, reasons for change to second line treatment and outcomes of patients on second line treatment. Results of this work were compiled and submitted for presentation to the CROI Conference in January 2011, and are currently being written for publications. Dr Chris Hoffmann has also done work in this area looking at cotrimoxazole preventive therapy and its effect on mortality and predictors of mortality in patients on long-term therapy. In addition, further work on cause of mortality in patients on antiretrovirals is being conducted.

In 2010, Aurum joined the southern African regional collaboration which forms part of the International epidemiological Databases to Evaluate AIDS (IeDEA) Collaboration, which has been established to systematically review the effectiveness of antiretroviral therapy (ART) in various regions, and to compare the experience between these regions.

In the field of TB and HIV integration, the focus has been on four innovative projects being implemented in collaboration with the Aurum Health Programmes Unit. One of these is a TB screening project in prisons where offenders and staff members of the prison were screened comprehensively for TB in order to determine the prevalence of TB in these individuals and to determine the best mechanism for detecting TB in this setting. This project although challenging in terms of the environment in which it is being conducted has been very successful and is expected to give invaluable insight into TB and HIV in prisons. The enrolment is now complete and results are being collated for presentations and manuscript development.

Another innovative programme is that of tracing household contacts of TB patients in order to identify those most at risk for TB and to offer care as quickly as possible to them. This project is being done in Rustenburg, North West Province. Preliminary analysis of this project was done by an MSc student of the London School and was able to identify both benefits of this programme and areas of improvement.

The third innovative programme is offering TB and HIV screening to taxi drivers in a busy urban transport hub. Although this is being implemented, the formal evaluation of this process has not yet begun, but preparation is now in its final stages and the project is expected to begin in April 2011.

The final project is a large TB/HIV integration implementation project, where an optomised model for scaling up TB/HIV integration will be evaluated at primary care clinics in Ekurhuleni North Sub-District, South Africa is expected to commence in May 2011. This will be a cluster randomised intervention study where 18 primary care clinics in Ekurhuleni North sub-district will be randomly assigned to receive either additional human resources (a cough officer and TB/HIV case manager) to support implementation of TB/HIV integration activities or to implement standard of care. The rationale of the study is optimal TB/HIV integration that should result in earlier diagnosis of both.

With a number of projects nearing completion and a large number of new projects commencing in 2011, we look forward to the new year with much enthusiasm and anticipation.

Research – Special Report: **Thibela TB**

In recent years, the HIV-fuelled TB epidemic has been worsened by increasing drug resistance and as such, TB remains the principal cause of death among the mining workforce. The movement of people throughout the region to South Africa to work in the mines remains a driver of TB. Despite implementing the best TB control strategies, the incidence of TB remains high in the mining industry (three to six times higher than in the general population), and is most rampant among gold miners who make up 32 percent of all miners. In response to the situation in both the mines and the country in general, the year 2010 saw South Africa become the first country to adopt the new WHO IPT/ICF guidelines and had the highest number of HIV infected people started on Isoniazid Preventative Therapy (IPT).

We were happy to share some of the experiences gained to date from Thibela TB when we participated in the revision of the South African IPT guidelines. As the IPT provision among people living with HIV is intensified in South Africa, we await the main findings of the Thibela TB study, which is looking at the likely effects of community-wide TB preventative therapy on the incidence rate of TB in the South African gold mining industry.

The aim of the Thibela TB study is to establish whether community-wide IPT, administered to an entire "at-risk" community, is more effective than TB preventative therapy that is given to high-risk individuals only, particularly those with HIV/AIDS or silicosis. Thibela's primary objective is to accomplish a 60 percent reduction in the incidence of TB in the community-wide IPT arm, compared to the control arm at 90 percent power. This is achieved by identifying and treating active TB, reducing reactivation of latent TB and prevention of early progression of newly acquired infection. If successful, such a programme will have the added advantage of reducing the transmission of TB between people, resulting in fewer cases of TB, which will in turn lead to improved control of the disease.

The Thibela TB study, overseen and managed by Aurum in South Africa, is one of three studies designed by the Consortium to Respond Effectively to the AIDS and TB Epidemic (CREATE), of which Aurum is a member. The research being conducted by Aurum, under the auspices of the Mine Health and Safety Council (MHSC) and CREATE, follows consultation and collaboration with three South African gold mining companies, namely, AngloGold Ashanti, Gold Fields and Harmony, and the Departments of Health, Labour, and Mineral Resources. Extensive consultation has occurred with representatives of the National Union of Mineworkers as well as other labour unions representing mineworkers to obtain their support for the study.

General Description of the Study

The Thibela TB study is an open cluster-randomised study. It is the largest CREATE IPT implementation trial. In the intervention clusters, community-wide IPT was offered to all employees without evidence of active TB. The 15 clusters recruited, with shaft sizes ranging from 1,000 to 10,000 people, had sufficient power to address the study objectives.

Review of Progress

Project Operations

Thibela TB project is nearing completion after close to six years of data collection. The roll out of the intervention, which involved community – wide TB screening and offering IPT for nine months to those without TB, is now finished. In the past year, the main focus of operations has been the measurement of the effects of the preventive strategy on TB rates. Consequently, the focus has been the measurement of end point data through a culture prevalence survey and gathering of data on TB episodes. At the end of 2010, the last of the 24,221 participants started on IPT attended his last follow up visit. All other clusters were in the final culture prevalence survey phase, except one which was still in primary measurement period.

As the last enrolment data emerges, it is exciting to note that a staggering number of miners volunteered to take part in the study. Over 27,000 participants volunteered to take up preventive INH therapy, with about 24,500 eligible to start on the medication in terms of the study protocol and 24,221 started IPT, which is the largest number of participants ever enrolled into a trial of IPT in the world!

The uptake of the intervention by more than 80 percent of miners in the last few clusters enrolled is unprecedented and is nothing shy of a remarkable testimony to the recruitment strategies and operational efforts of the study team. Retention statistics in the latter clusters are equally encouraging, with some retaining as many as 80 percent of participants on the medication. The study will be completed by June 2011 and final results are expected to be presented in the first half of 2012.

Sanofi-Aventis continued their ongoing support for Thibela by donating all isoniazid requirements for the study as part of their Global Access Corporate Social Investment programme. We remain grateful to them for this assistance as a major contribution to this study.

Lessons Learned

Whilst the study is still ongoing, there are a number of important lessons that are already emerging that bear mentioning in this report:

Isoniazid is safe

Data from the Thibela TB main study show that adverse effects of INH are very rare. The side effects from IPT use are generally mild and occur in a small percentage of the population. Of 24,221 individuals enrolled in the study, only 130, or 0.54 percent, had adverse side effects, primarily rash, peripheral neuropathy (nerve damage), clinical hepatotoxicity (liver damage) and convulsions. Despite a population with a relatively high median age (40 years) who would traditionally be considered at high risk of hepatotoxicity, only seventeen individuals (0.07 percent) experienced symptoms suggesting symptomatic hepatotoxicity. Only four events fulfilled criteria as being serious adverse events. Our data suggest that clinical criteria can safely be used for screening prior to and monitoring during IPT.

Isoniazid is well tolerated

Data from a detailed sub-study of minor adverse effects among 498 Thibela TB enrolees show that IPT is very well tolerated. Sixty-five percent of participants reported feeling better on IPT - in 55.6 percent of cases this was attributed by participants to increased appetite. Overall, IPT was well tolerated by the great majority of individuals in this trial.

Screening for active TB prior to IPT contributes to TB case finding

Data from TB screening at enrolment of more than 27,000 individuals to the Thibela TB intervention showed that 1.4 percent had definite or probable tuberculosis. Compared with screening by symptoms alone, screening by symptoms plus chest radiography increased the number of definite tuberculosis cases detected by 2.5 fold. We learned from this that TB screening prior to IPT detects a substantial burden of tuberculosis and contributes to intensified tuberculosis case finding, and that in our setting, chest radiography is a useful addition to a symptom screen. This is particularly interesting because these finding are in the context of an already highly screened population.

Risk factors for active TB missed at screening

Among 23,095 individuals screened at enrolment to Thibela who were considered not to have active TB and therefore were dispensed INH, 126 (0.54 percent) were classified as TB screening failures as they were diagnosed with active TB within three months of enrolment. Being in HIV care, lower weight and alcohol use were associated with increased risk of TB being missed at screening. We learned from this that our screening protocol missed very few cases, supporting the use of symptom and chest radiographic screening to exclude TB prior to starting IPT.

The work on adverse events was presented at the World Lung Health Conference in Berlin in November 2010. A supplement of the journal *AIDS* which showcased the experience with IPT from all three of the CREATE projects was published in November 2010. The work done as part of Thibela TB published in this supplement includes: a cross sectional analysis, a cross sectional analysis describing the prevalence and risk factors for tuberculosis at screening prior to offering IPT, a cross sectional study describing the adverse events occurring in the Thibela TB study, and a description of a programme of community education and mobilisation to promote uptake in a cluster-randomised trial of tuberculosis preventive therapy offered to all members of the intervention clusters. Three other articles published in this supplement were based on work within our HIV care programme; these comprise a qualitative study of clinician and patient barriers to implementation of IPT, an observational study showing an association between IPT started around the time of ART start and reduced mortality, and a viewpoint discussing why randomised controlled trials may have underestimated the potential effect of IPT programmes on mortality among people with HIV.

Community Mobilisation

Community mobilisation remains key to the project, and ongoing stakeholder consultation and communication are essential for success in all phases. Overcoming "Thibela fatigue" was an important theme in community engagement, and the imperative of keeping in communication with all groups, especially the participant representative groups, remains a perennial lesson.

The community mobilisation programme and the lessons learned during this remarkable journey have been written up as part of the AIDS supplement published in November 2010. Other projects will potentially benefit from this information and use it to implement successful strategies for preventing TB.

Data Management

The Phase Forward fully electronic data management system, InForm, has been the backbone of the Thibela study throughout its course. It has clearly proven to have been a very wise investment in ensuring that the data (the ultimate source of answers to the study questions) will be sound, reliable and rapidly available to analysts as the study moves into the measurement and outcome phases. By the end of 2010, three study databases had been locked and cleaned in record time including: baseline survey, main study, and FIND study databases. The data management team is congratulated on the innovative and adaptive ways in which they respond to each challenge in this part of the study.

Policy and Advocacy

Aurum has worked closely with the mines, public sector and both local and international researchers and academics.

Thibela's investigators have contributed to transformation of global policy in a few particularly notable areas:

Policy on screening for active TB prior to IPT

A major obstacle to wider implementation of IPT has been the lack of an evidence-based policy on the most appropriate screening tool to exclude active TB prior to starting IPT. We have contributed two datasets to a meta-analysis led by WHO using individual patient data to identify a sensitive TB screening rule. The analysis recommends a four symptom screening tool which has high sensitivity and good negative predictive value in most populations. This simplified screening tool uses any one of the four symptoms to identify people living with HIV who need further investigations for TB. A paper describing this meta-analysis was accepted for publication in *PLoS Medicine* in January 2011.

Revised South Africa guidelines on IPT

South Africa was the first country to adopt the WHO IPT/intensified case finding (ICF) guidelines that were revised in January 2010. In March 2010, Thibela TB investigators participated in a meeting convened by National Department of Health (NDoH), Thibela TB and CREATE to finalize the SA IPT guidelines.

Contributing to global advocacy efforts

During 2010 our principal contributions to global advocacy for the wider use of IPT included:

Disseminating our experience in IPT implementation in a supplement in a high-impact journal

We have contributed eight articles to the CREATE special supplement on IPT implementation and these were published in the journal *AIDS* in November 2010. These articles primarily describe our lessons learned in wide-scale IPT implementation, as described in the lessons learned section above.

Communicating our experience at international meetings

We have presented our work at a number of international meetings. Particular highlights have included firstly: the Union World Conference on Lung Health in Berlin, Germany, in November 2010, where we presented work that we have done on the spectrum of non-tuberculosis mycobacteria identified at microbiological screening for TB in Thibela TB study sites, and secondly, Alison Grant, a Thibela TB investigator, presented from work done in 2010 some new horizons in latent TB treatment including new regimens duration of IPT, IPT and antiretroviral therapy (ART) and obstacles to implementation of IPT, at the CROI Conference in February, 2011.

The Next Steps

Thibela is now moving into its final phases after six years of exhilarating and strenuous work amongst the miners. In the first half of 2011, we will concentrate on completing end point data collection; primarily completing final culture prevalence surveys in all the clusters and TB episode data for both the pre-primary and primary measurement periods. As expected, this is demanding on the teams left at the sites as they need to go back and check all data for completeness.

As the project draws to its natural conclusion, the year 2010 saw the closure of the sites and during this time, with teams needing support and encouragement to see this project to the end. But the experience gained bodes well for the future – we have a whole cadre of great people with exceptional skills which can be deployed either within Aurum or elsewhere in South Africa. The teams at our three regional sites must be congratulated on the work that has gone into enrolling participants and collecting all the data required for the study.

The awaited final data analysis will start in the latter half of 2011 and the expert team of statisticians will start preparing for this at the beginning of 2011. On a closing note, Thibela TB is, and will continue to be respected as a mammoth project that persistently surprises all who worked towards its audacious objectives. It holds the promise of providing an incredibly significant stride forward in the fight to stop TB – and hope is what keeps us all motivated. Thanks go out to all the team members, past and present, both in South Africa and abroad, for their dedication to this task.

2010

Operations **Division**

Our new structure apportions work into two business units – the Health Programmes Unit; and the Research Unit, supported by an Operations Division which includes support service units: Data Management, Monitoring and Evaluation, Quality Assurance, Training and Clinical Care.

The Operations Division is the largest part of Aurum. Operations implements Health and Research projects, with the purpose of actualising public health research and service projects by deploying resources (employees, infrastructure, systems and management) to the various real and virtual geographical sites and managing them appropriately.

The nature of the work is determined by Organisation Level Agreements (OLA's) between the business units and the operations division in which the scope of operational deliverables and allocated physical, financial and intellectual resources are mapped out in detail.

Operations strives to attain excellence through standardisation, harmonisation and performance management. It seeks to maximise the efficiency and productivity of individuals and teams in pursuit of Aurum's values and goals. The project and organisational assets used to get our work done, including the safe use and management of those assets, is managed largely by the operations team in the various areas where we work.

Operations staff report directly to an Operations Supervisor on-site and indirectly, to a technical specialist from either the Research or Health Programme business unit. The on-site Operations Supervisor ensures an enabling environment in which operations staff can accomplish their daily tasks.

Aurum's technical specialists in the business units provide technical support and guidance to ensure their work meets the highest standards and together they look for opportunities to innovate and improve on what is being done. Lessons learned help in developing the best systems and processes for doing our work. Technical specialists may be based on-site or at head office travelling regularly to the project or programme site.

Operations Supervisors report to Ops Deputy Directors and they report to the Ops Director, who reports directly to the Deputy CEO.

Core Service Units

The Data Management Department draws all data management resources from across Aurum into one department which standardises and harmonises data management policy, practice and outcomes for all projects. It also houses an electronic data warehouse relating to research and programmatic work.

The Monitoring and Evaluation Department is a well resourced group that monitors, evaluates and reports on all project related activities of business. The aim is to enable business units and operations to document work

being done, report to stakeholder partners and assess the effectiveness of the work being conducted. Key work areas include: systems development and management, indicator development, data gathering and analysis, evaluations, and communication of data and information for a variety of audiences.

The Quality Assurance Department internally reviews quality of work practices and procedures as well as assisting in standardising design of quality approaches in all projects in the development phase.

The Training Department provides highly relevant, current training to doctors, nurses, peer educators, counsellors and others involved in TB and HIV/AIDS care, treatment and research. Aurum trainers are fully trained themselves, and have extensive experience in TB and HIV care. Trainers include doctors, nurses, a social worker, a psychologist and experienced counsellors. Training also includes a day of follow-up to help participants integrate what they have learned into their practice at work and in the community. There are over 30 training courses are on offer, including but not limited to the following: Antiretroviral therapy (ART) training for doctors, ART training for nurses, TB course for nurses, running support groups, prevention of mother-to-child transmission, prevention for positives, adherence counselling for ART and TB treatment, VCT counselling for couples, disclosure of HIV status and addressing stigma, adherence to ART for children, sexuality in the time of HIV/AIDS, circumcision, addressing rape and sexual violence, addressing alcohol abuse and HIV risk, and gender issues and HIV/AIDS.

The Clinical Care and Support Department is made up of a group of clinical experts who are a resource to clinicians and nurses in the field. They assist with information, guidance and opinion on the various clinical challenges and conundrums faced by workers seeing patients on a daily basis.

Corporate Services

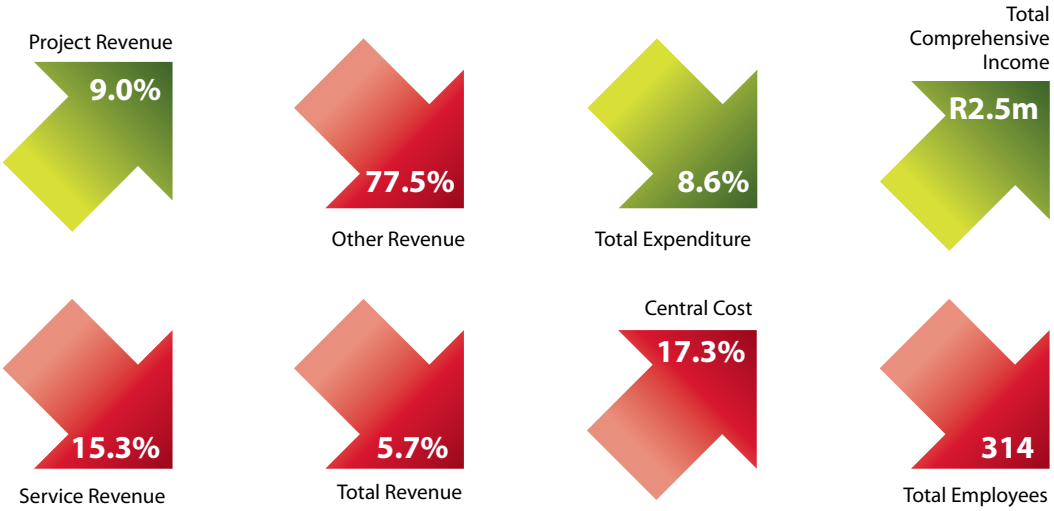
Aurum's finance department deploys the solid SUNSystems financial system which underpins the work of a team of Chartered Accountants, management accountants and accounting officers and clerks. The base accounting system is further strengthened by electronic procurement and payment management systems, an electronic time-sheet system and a grants management system. The Chief Financial Officer also oversees the whole matter of governance and risk management to move closer to compliance with the King III report and good business practice standards. The finance and grants departments also maintain the asset registers and ensure Aurum compliance with the various grant conditions and with South African legislation.

Our IT system, comprising a secure, virtualised server environment and a robust network with links to the internet, remains a backbone to Aurum's growth and development, and the envy of other NGOs. In the year ahead we will be implementing the SharePoint system to consolidate and codify organisational knowledge, improve collaboration and foster better communications between the various parts of the organisation.

Our people are always our greatest asset. The Human Resources Department remains central to Aurum, but has numerous challenges in the pursuit of making Aurum an employer of choice in a scarce skills environment. Together with the Remuneration and HR Committee of the Board, the HR Department maintains all the organisation's policies and procedures in line with current HR practice and legislation. They also keep abreast of employment conditions in the health sector to ensure that we can achieve our strategic goal of attracting and retaining key staff for the programme, research, operational and support divisions of Aurum. The HR department is responsible for the VIP payroll system and administration of employee benefits.

Aurum's communications and marketing department works on the presentation of Aurum to society, maintaining good relationships with key health media, the management of the internet site, and the successful management of the numerous events, functions and trainings that take place each year. They are also responsible for internal communications, primarily through the intranet system and e-mail, but also executing road shows and the promotion of Aurum-branded gear for staff to wear to work and at leisure.

2010 Financial **Highlights**



Overview: Overall total revenue for Aurum declined but remained healthy over the R200m mark despite the local and global economic uncertainties which prevailed during 2010.

Project revenue increased while service revenue and donations together remained flat year on year. Other revenue declined significantly as a result of currency exchange rate strengthening whilst expenditure decreased more than the decline in revenue. This resulted in a surplus of R2.5m for the 2010 year.

The total staffing complement decreased by 100, or 24%, from 414 at the end of 2009 to 314 by the end of 2010. There has been a significant reduction in Aurum staff - this was planned and can be explained and can be explained by the impact of two projects namely: the completion of the Royal Bafokeng project where staff from Aurum's payroll were transferred to the Department of Health or to the Royal Bafokeng, and the winding down of the Thibela TB project which was labour intensive.

Total revenue: Total revenue decreased by R13.5m or 5.7% to R224.7m in 2010 (2009: R238.1m), mainly due to a reduction of other revenue by R30.9m, offset by increased project revenue of R17.1m.

Project revenue: Total project revenue increased by R17.1m or 9.0% to R205.2m in 2010 (2009: R188.1m). Increased project revenue resulted from various projects, the main contributors of which were PEPFAR for the treatment and health systems support of HIV/TB R23.3m; research projects comprising: TB AERAS R1.8m; EDCTP adolescence study R1.6m; EDCTP vaccine trial R1.7m; Rifaquin R1.0m and MTN VOICE R9.0m; offset by decrease in projects closed out or nearing completion: Royal Bafokeng (3.9m); Thibela (R10.5m); FHI (R5.6m) and Virax (R0.5m).

Service revenue: Revenue from services decreased by 15.3% to R5.5m in 2010 (2009: R6.5m), mainly due to a reduction in the number of companies formerly participating in the Aurum Workplace Program, as they took over full ownership of their programmes as planned.

Other revenue including donations: Donations were up by R1.3m or 38.1% to R4.9m (2009: R3.5m) and the main contributors were the Anglo American Chairman's Fund and the Impala Bafokeng Trust donations being R1.5m and R1.8m respectively. The decrease in other revenue was as result of the stronger Rand compared to the prior year. Aurum receives a significant proportion of its funds in foreign currency and most projects are budgeted at legacy exchange rates. Interest income remained flat year-on-year.

Expenditure: Expenditure decreased by R20.2m or 8.6% to R215.7m (2009: R235.9m). The decrease in expenditure correlates to the lower overall revenue for 2010 as discussed above.

Central administrative costs: Central administrative costs include the governance, IT and core support costs and these have increased by 17.3% to R20.8m (2009: R17.7m). Part of the increase in management and systems capacity was funded from specifically assigned portions of donations as well as additional head office recoveries. A portion of the increase in central costs related to once-off costs such as the Aurum strategic review.

Head office recoveries: Recoveries from project and service revenue in respect of central administration, compliance and governance activities (core costs) averaged 9.6% (2009: 9.4%). Aurum continued to under recover on core costs for by R6.0m for 2010 (2009 restated: R4.1m) and this was mainly attributable to the low core cost recovery component of projects undertaken and once-off costs.

Net surplus for the year: Aurum generated an accumulated surplus of R2.5m (2009 restated: R0.1m deficit), a satisfactory financial conclusion to the 2010 year.

Key issues for 2011/2012: Aurum has prioritised the following governance and financial issues for 2011/2012:

- Raising core funding to maintain management, leadership and systems capacity and sustainability in the face of uncertainty;
- Strengthening the Aurum Balance Sheet and maintaining and building the level of reserves in a competitive funding environment;
- Managing working capital and cash flow requirements in a risk controlled manner;
- Reducing operational costs though greater efficiency;
- Strengthening internal financial reporting and management and data/knowledge management systems, including the implementation of a Microsoft SharePoint environment for the organisation;
- Roll out of upgraded grants and performance management systems;
- Initiating and implementing a formal risk management programme;
- Implementation of the King III Report standards on corporate governance which is now applicable to NGOs; and
- Operating effectively within the new structure that Aurum has adopted from its strategic review, both in terms of reporting lines and reporting process.

Abridged statement of comprehensive income
for the year ended 31 December

	2010 R'000	2009 Restated R'000
Revenue	**224,694**	**238,174**
Project Revenue	205,228	188,142
Service Revenue	5,489	6,480
Training Revenue	49	0
Donations	4,922	3,564
Other Revenue	9,005	39,988
Expenditure	**215,668**	**235,915**
Net surplus for the year	9,026	2,259
Other comprehensive income adjustments:		
Funding transferred to strategic reserve	6,788	0
Depreciation on asset donation released	(583)	0
Asset donation received	321	2,311
Total comprehensive surplus /(deficit)	**2,500**	**(52)**

Abridged statement of financial position
for the year ended 31 December

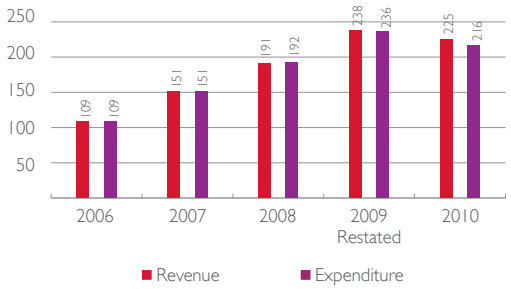
	2010 R'000	2009 Restated R'000
Assets		
Non-current assets	**2,059**	**3,195**
Plant and equipment	1,670	2,348
Intangible assets	389	847
Current assets	**72,304**	**64,078**
Project funds receivable	44,698	11,838
Trade and other receivables	3,804	12,405
Cash and cash equivalents	23,802	39,835
Total assets	**74,363**	**67,273**
Equity and liabilities		
Members' contributions and reserves	4,600	2,101
Asset donation reserve	2,049	2,311
Strategic reserves	6,789	0
Total Contributions and funds	**13,438**	**4,411**
Current Liabilities	**60,925**	**62,862**
Trade and other payables	43,922	24,049
Deferred project revenue	17,003	38,812
Total equity and liabilities	**74,363**	**67,273**

Download a full set of audited financials at: http://www.auruminstitute.org/annual_financial_reports.php

Abridged statement of cash flows
for the year ended 31 December

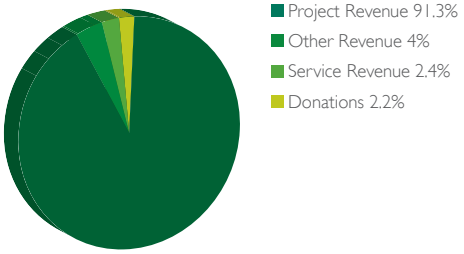
	2010	2009 Restated
	R'000	R'000
Cash flows from operating activities	**(15,712)**	**37,133**
Cash receipts from clients/donors	182,217	261,586
Cash paid to suppliers and employees	(198,897)	(225,492)
Cash generated by operating activities	(16,680)	36,094
Interest Received	968	1,039
Cash flows from investing activities	**(322)**	**(2,609)**
Expenditure to maintain operating capacity		
Plant and equipment acquired	(322)	(2,098)
Intangible assets acquired	0	(512)
Cash flows from financing activities	0	0
Increase in cash and cash equivalents	(16,034)	34,524
Cash and cash equivalents at beginning of the year	39,836	5,312
Cash and cash equivalents at end of the year	**23,802**	**39,836**

Five Year Review: Revenue and Expenditure in R million

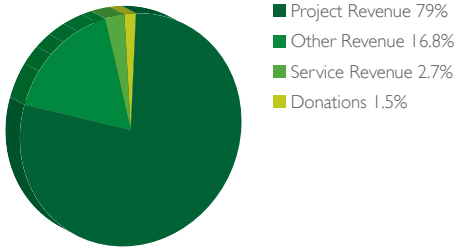


Aurum Revenue and Expenditure Growth 2006–2010 (%)

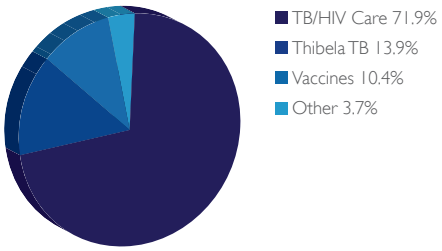
Revenue 2010



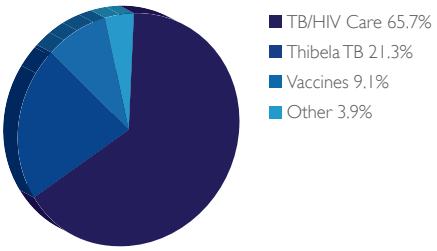
Revenue 2009



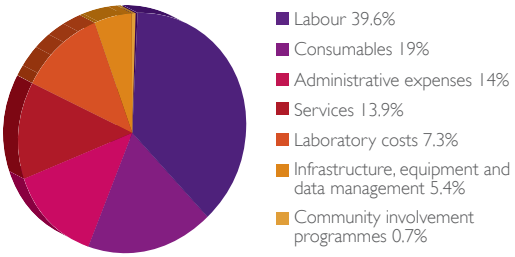
Programme Revenue 2010



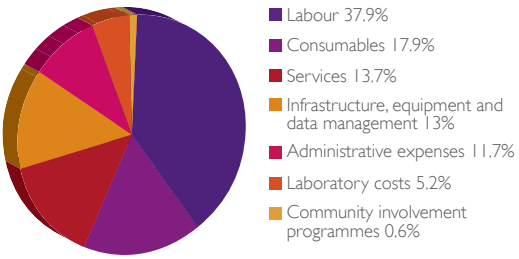
Programme Revenue 2009



Expenditure 2010



Expenditure 2009



Publications **in 2010**

Publications in 2010

Published and/or peer-reviewed

Charalambous S, Grant AD, Innes C, Hoffmann C J, Dowdeswell R, Pienaar J, Fielding KL, Churchyard GJ. **Association of isoniazid preventive therapy with lower early mortality in individuals on antiretroviral therapy in a workplace programme.** *AIDS.* 2010;24, Suppl 5: S5-13.

Chaisson RE, Churchyard GJ. **Recurrent Tuberculosis – Relapse, Re-infection and HIV.** *J Infect Dis.* 2010;201: 653-5.

Cheng C, Gall JGD, Nason M, King R, Koup RA, Roederer M, McElrath MJ, Morgan CA, Churchyard GJ, Keefer MC, Graham BS, Nabel GJ. **Differential specificity and immunogenicity of adenovirus 5 neutralizing antibodies elicited by natural infection or immunization.** *J Virol.* 2010;84: 630-8.

Chihota VN, Grant AD, Fielding KL, Ndibongo B, van Zyl A, Muirhead D, Churchyard GJ. **Liquid vs. solid culture for tuberculosis: performance and cost in a resource-constrained setting.** *Int J Tuberc Lung Dis.* 2010;14: 1024-31.

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Can you **possibly help?**

2010

"One of the major problems that faces us is funding our core."

Prof. Gavin Churchyard, CEO, The Aurum Institute

Our business plan requires that we eradicate Southern Africa of HIV/AIDS and TB by 2035.

Our infrastructure is strong. And we at the Aurum Institute and our local and global partners have made huge in-roads in the journey to eradicate the scourge of HIV/AIDS and TB from the various communities in which we work. But every step of the way requires a firm foothold. Supported either financially, or in kind.

That is where we require help. Your help. Your support. To push forward we need further supplies. For our core infrastructure and our projects. In cash and in kind.

Join us and together we can continue to advance against the enemy. Together we can become an even stronger and more potent force. Talk to us about what you can do. Help us to eradicate this dreadful human affliction.

Here's to an overwhelming victory, that many can share. Our work depends on your support.

If you would like further information, or believe you could help, please contact Dr Paul Davis directly on: pdavis@auruminstitute.org

"The rigour with which objectives and targets are set and the manner in which they are worked towards are impressive. The stated value of "integrity" is evident, and the impact of this organisation is impressive."

Centre for Disease Control / SEAD April 2009

Ways you can **possibly help**

The Aurum Institute is reliant on the support of the private and public sector to continue its critical work in TB and HIV/AIDS. The Institute has an audacious plan, based on decades of staff and collaborator years of experience, to eliminate TB in South Africa by 2045. It is achievable, but only with the support of all stakeholders, including the very important private sector. It is our opportunity as South African companies to stand behind a South African organisation for the betterment of the health of the nation. We can eliminate TB together.

We are appealing to South African corporates to assist us in this goal in whatever way possible. Below is a broad range of goods and services that, if you are able to fund or subsidise, would assist us considerably. Please bear in mind, we can also develop and implement your TB, HIV/AIDS Workplace Programmes. We seek genuine win-win relationships and may be able to assist your company through access to our expertise and public health services. All support will be acknowledged and a S18A certificate will be issued.

- Sponsorship of clinic and office facilities – purchase/rental and operating costs
- Medication for participants and patients attending Aurum Clinics
- Food parcels for participants that are taking medication
- TB and HIV testing kits (Voluntary Counselling and Testing)
- TB and HIV/AIDS Awareness material:
  - Brochures and Pamphlets for patients and participants
  - Educational DVDs (Played on TVs in the waiting areas)
  - Posters
  - Flyers – clinic information
- Patient/Participant Waiting Areas:
  - TV and DVD players for the showing of Educational DVDs
  - Coffee/Tea kitchenette – urn/hydroboil, mugs, jugs, containers, bar fridge
  - Coffee/Tea kitchenette – tea, coffee, sugar and milk supplies
  - Refreshments: Sandwiches, Hot Soup and Bread (winter), fresh fruit
  - Reading material: Newpapers and magazines
  - Childrens play areas: toys
- Patient Examination Areas:
  - Weight scales
  - Blood pressure machines
  - Doctors examination equipment
  - Clinical supplies
- Laboratory and Pharmacy equipment and supplies
- Clinic Uniforms and Outreach staff uniforms
- Infection Control: Airconditioners, Extraction units, UV units, masks and gloves etc
- Vehicles for outreach programmes i.e SME (VCT)
- Vehicles for the transporting of patients/participants, fieldwork and tracing patients
- Vehicle maintenance, repairs and running costs
- Campaigns and outreach programmes:
  - Banners
  - Sound Equipment
  - Trailer for transporting sound equipment, gazebos and banners
- Signage: External Signage to identify the Aurum clinics to the communities and internal signage
- Health, Safety and Environment Equipment and Supplies
- Equipment such as computers, printers, photocopiers, telephone switchboards, cellphones

- Office supplies such as paper, stationery, ink cartridges etc
- Data Management – programmes, bulk filing units, archive storage
- Software – computer software programmes
- SMS System and Airtime for the contacting of patients/participants i.e appointment reminders, follow up on missed appointments etc
- Aurum Community Awareness Programme:
  - Advertising – Billboards
  - Advertising – Newspaper editorials etc
  - Advertising – Television and radio
  - Media monitoring

- Conference Participation:
  - Travel and Accommodation
  - Conference expenses
  - Posters and presentation material

- General Overheads:
  - Banking Charges
  - Insurance
  - Auditing
  - Legal Fees

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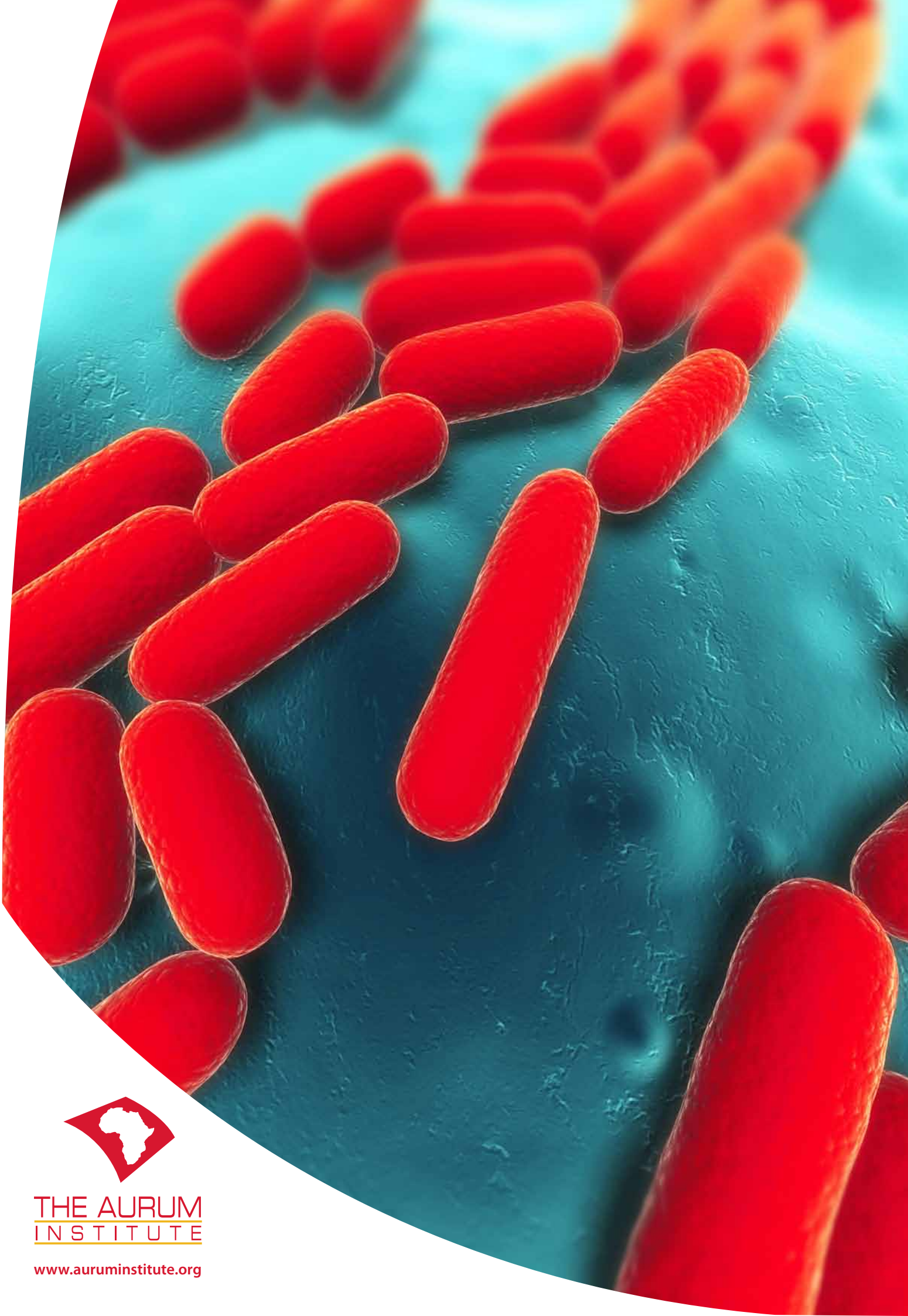

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