

# CSIR

The CSIR's values include people and reputation, enhancing relevance, integrity, quality and delivery. We also embrace ingenuity and diversity, embracing an environment that respects the individual and our multicultural heritage. Finally, energy is about working together to achieve impact through passion, drive and agility.



#### Business Activities:

Directed research, technological innovation, industrial and scientific development

#### Organisational Culture:

The organisation is committed to the growth and development of our scientists, engineers and technologists through the various opportunities available at the CSIR.

The Council for Scientific and Industrial Research (CSIR), established in 1945 as a parastatal by Government, contributes to research development in South Africa. The Scientific Research Council Act (1988) commits the CSIR to the pursuit of directed research, technological innovation and industrial and scientific development to improve the quality of life in our country and beyond.

The CSIR offers a wide range of career opportunities, particularly in science, engineering and technology.

The CSIR offers a unique proposition to highly talented people who want to apply their talents to advance scientific research and technological innovation. As a multidisciplinary research institution, it enables employees to work with world-class experts in a broad range of disciplines, opening up vast opportunities to develop novel outputs; while because of its public mandate, it creates an opportunity for employees to apply their knowledge and skills in their chosen disciplines to address real-world problems.

The company thereby contributes to the social and economic development of the nation, while operating within strict business and finance management principles. It also promotes continuous professional and career growth for all employees by providing support for university studies, as well as through its on-site academy. The CSIR main campus, along with satellite campuses across the country, offers physical work environments that are aesthetically and environmentally pleasing, while boasting a range of sporting and recreational facilities and social clubs.

The Human Capital Development (HCD) Strategy, which was approved by the CSIR Board in November 2006 and came into effect at the



beginning of 2007, was developed for the purpose of ensuring a sustained pool of appropriately qualified personnel in science, engineering and technology to address the current and future needs of the CSIR and the country.

The company's internship programme supports Btech, BSc and BSc Honours graduates, giving them the opportunity to gain practical experience at the CSIR once they have completed their degrees.

The organisation's bursary scheme has also been enhanced. At the end of December 2010, there were 130 students participating in the CSIR bursary scheme. CSIR bursars, typically studying towards BSc, BEng and BSc Honours, are required to do vacation work. They are also expected to work at the CSIR after the completion of their degree. If they do, they aren't required to pay for the cost of their studies.

The third element, studentships, provides Master's and PhD students with an opportunity to work on their research projects under the guidance of CSIR experts. Thus far, there are 221 of these students at the CSIR.

A second prong of the HCD strategy focuses on the CSIR's existing staff. Life-long career development and professional growth is promoted through the provision of a variety of learning and development prospects and professional support. This initiative has proved successful, with the result that the skills profile of the organisation is starting to undergo a transformation.

The CSIR has instituted a self-driven career ladder system for its science, engineering and technology staff. This gives employees the opportunity for promotion if they meet certain criteria, like publishing in accredited journals, attracting contract R&D and acting as a mentor.



## CSIR's pipeline development

At the Council for Scientific and Industrial Research (CSIR), we are serious about empowering the minds of young people and our statistics speak for themselves.

- The number of studentships supported in 2009/10 is 232 up from 66 in 2006/07.
- The number of interns in 2009/10 is 141 up from 59 in 2005/06.
- The number of bursars supported in 2009/10 is 192 compared to 26 in 2005/06.

Our focus is on highly-skilled people – building and transforming human capital; strengthening science, engineering and technology; transferring technology; and ensuring that the expertise and skills generated and honed at the CSIR add value to South Africa.

The CSIR is one of the leading R&D, technology and innovation institutions in Africa, with a track record spanning over 60 years. Structured to manage the entire research and innovation value chain, the CSIR strives for excellence in all its endeavours in order to improve the quality of life of South Africa's people and to increase the global competitiveness of South African industry.

Visit [www.csir.co.za](http://www.csir.co.za) or contact us at 012-841-2000.

The CSIR – our future through science



Watch the grad interviews on [www.careerssa.net](http://www.careerssa.net)

#### Graduate Recruitment Contact

Nokuthula Zama  
nzama@csir.co.za  
+27 (12) 841 3256

[www.csir.co.za](http://www.csir.co.za)



Thabo Gcwabaza:  
Associate's degree in  
chemical technology,  
bachelor's degree in  
chemistry  
(West Virginia State  
University) and  
Master's in chemistry  
(Marshall University)



#### The Grad Perspective

Thabo Gcwabaza is a research scientist in the MSM Unit at the CSIR. He holds a number of qualifications, including an associate's degree in chemical technology from the West Virginia State University, where he also obtained his bachelor's degree in chemistry. He completed his Master's in chemistry at Marshall University.

Thabo chose to work at the CSIR because it is one of the leading scientific and technology research, development and implementation organisations in Africa. Constituted by an Act of Parliament in 1945 as a science council, the CSIR undertakes directed and multidisciplinary research, technological innovation as well as industrial and scientific development to improve the quality of life of the country's people.

Impact is at the core of the CSIR's mandate. In improving its research focus and ensuring that it achieves maximum impact in industry and society, the organisation has identified six research impact areas:

- **Health** – with the aim of improving health care delivery and addressing the burden of disease.
- **Natural Environment** – with an emphasis on protecting our environment and natural resources.
- **Energy** – with the focus on alternative and renewable energy.
- **Built Environment** – with a focus on improved infrastructure and the creation of sustainable human settlements.
- **Defence and security** – contributing to national efforts to build a safer country.
- **Industry** – in support of an efficient, competitive and responsive economic infrastructure.

With these key priority areas, the CSIR is a perfect match for Thabo's interests and goals. He is passionate about improving life through science, and believes that there is nothing more fulfilling than being part of a team that is geared for to achieve just this. The CSIR provides him with the opportunity to live this dream every day.

Originally from KwaZulu-Natal, Thabo spent most of his academic life studying abroad in the USA and is currently completing his PhD at the University of Pretoria. He has received numerous honours, such as the William H Davis Scholarship, Mary McGee Hairston Scholarship and a National Aeronautics and Space Administration (NASA) Scholarship. He was also inducted in Omicron Delta Kappa, the sought after USA honour society.

In 2009, Thabo spent six months as a visiting scholar in the Department of Chemical and Biomolecular Engineering at Clemson University in South Carolina. He is also a member of the highly regarded Alpha Phi Alpha.

Thabo's current project as a research scientist at the CSIR involves the development of

medical implants or devices, such as bio-ceramics, micro-biocides and coronary stents. 'The aim is to develop safer, more efficient and cheaper devices,' he explains. 'I'm also involved in the development of an alternative therapeutic method for preventing sexually transmitted infections (STIs).'

Working in a world-class facility at the CSIR National Centre for Nano-Structured Materials motivates Thabo enormously. 'The skills that I have gained in the studentship programme have prepared me to take on bigger projects,' he says. 'The CSIR's development programmes for research professionals are designed to improve one's skills as a researcher, while at the same time developing one's people skills.'

The CSIR makes a concerted effort to fast track researchers' careers, and there are several opportunities to gain exposure and experience both locally and abroad.

According to Thabo, the CSIR provides a work environment that is rich with all the resources that he needs to learn to think big, to innovate, and to thrive in both his career and personal life. 'I'm also inspired by the terrific team of creative and talented professionals I work with.'

What has Thabo's career taught him so far? 'I have learnt that, as a scientist, all the projects I'm engaged in should have a public interest.'



**Total staff:** 2 289

**Total grads:** Varies according to business needs

**Average starting salary for graduates:**

Salary depends on the starting grade as per the company's career ladder placement.

**Male/female staff component:** 39,2% male; 36,2% female



# Research that can change the world

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