

iGEM 2010

An **i**nternational contest
to build the best

Genetically **E**ngineered **M**achine



University of the Witwatersrand, Johannesburg

The CSIR logo is displayed in large white letters. The background consists of a blue-tinted image of a classical building with columns, and a yellow-tinted image of a similar building.

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www.wits.ac.za



What is iGEM?

iGEM was initially an initiative of the MIT iCampus programme and became the premiere undergraduate Synthetic Biology competition. Teams competing at iGEM are made up of students who work on a synthetic biology project. Teams are given a kit of biological parts from the Registry of Standard Biological Parts. They use these parts and new parts of their own design to build biological systems and operate them in living cells. In November, the results are presented at the iGEM Jamboree in Boston, Massachusetts. The first iGEM competition in 2004 featured teams from 5 Universities. Last year, 110 teams from were participating with over 1200 participants taking part in the competition.

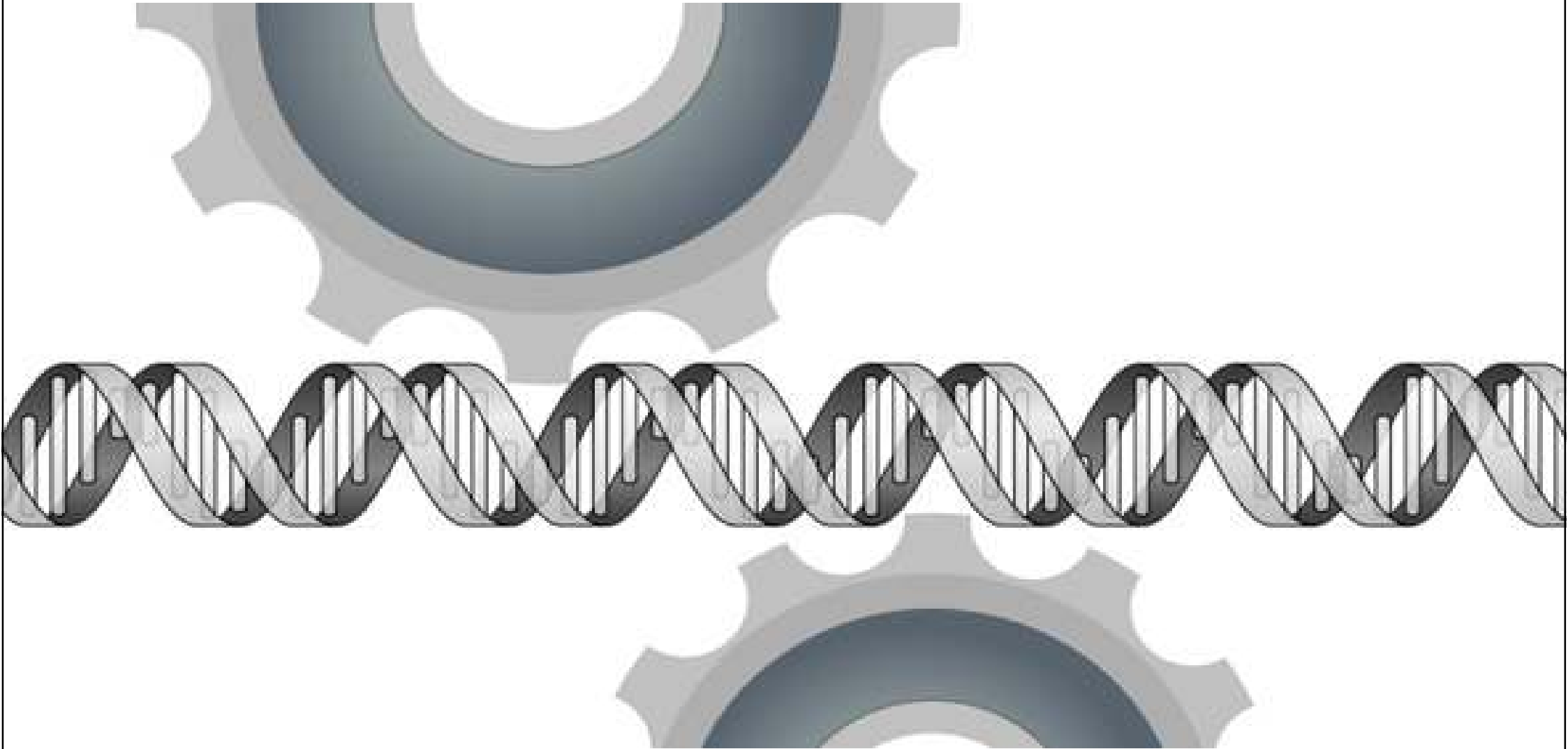
Photo courtesy of iGEM – David Appelyard

In 2010, 6 students from the University of the Witwatersrand - in collaboration with the CSIR - will compete as the first team from Africa.





*University of the Witwatersrand,
Johannesburg*





Learning and Research

iGEM is not only changing the way biology is taught, but also helping to change the way in which it is understood. This is achieved by taking the learning-by-doing approach in an interdisciplinary setting. One can imagine how an engineer might see this as a new radio to take apart into defined parts to rebuild, only perhaps in a more interesting or useful way. Or, see how someone with a background in mathematics might be interested in modeling newly developed systems in order to optimize their behavior, or someone with a background in biology or chemistry might want to apply previously learned principles and techniques into this new and exiting field. Moreover, societal impact and ethical considerations might be interesting to philosophy students while they learn about tools to organize, model, and assemble complex systems.

**Honours students and
Faculty advisors from 6 Schools will constitute the
Wits iGEM 2010 team.**



Where can I get more information?

Check out <http://www.igem.org> for general information on iGEM.

How do I get involved?

Honours students send an email to the iGEM representative of the School they were accepted:

Molecular and Cell Biology:
Dr Karl Rumbold (karl.rumbold@wits.ac.za)

Social Sciences:
Dr David Martens (david.martens@wits.ac.za)

Chemical and Metallurgical Engineering:



University of the Witwatersrand, Johannesburg

Mr Ezekiel Madigoe (ezekiel.madigoe@wits.ac.za)

Pathology:
Dr Marco Weinberg (marco.weinberg@wits.ac.za)

Electrical and Information Engineering:
Prof David Rubin (david.rubin@wits.ac.za)

Mathematics:
Prof David Sherwell (david.sherwell@wits.ac.za)

CSIR Biosciences:
Dr Raymond Sparrow (rsparrow@csir.co.za)
Dr Musa Mhlanga (mmmhlanga@csir.co.za)

The CSIR logo, consisting of the letters 'CSIR' in a large, white, stylized font. The background of the logo area is a blue-tinted image of a classical building with columns.

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Community Interaction

Wits iGEM and the CSIR will be reaching out to the local community. The Wits iGEM team will form partnerships with several High Schools in the Gauteng Province. Wits iGEM will provide a learning and research experience for selected High School students over the Winter term and will also host a seminar series open to public at Wits University. Topics will range from science and engineering to ethical, legal and social implications of synthetic biology research.





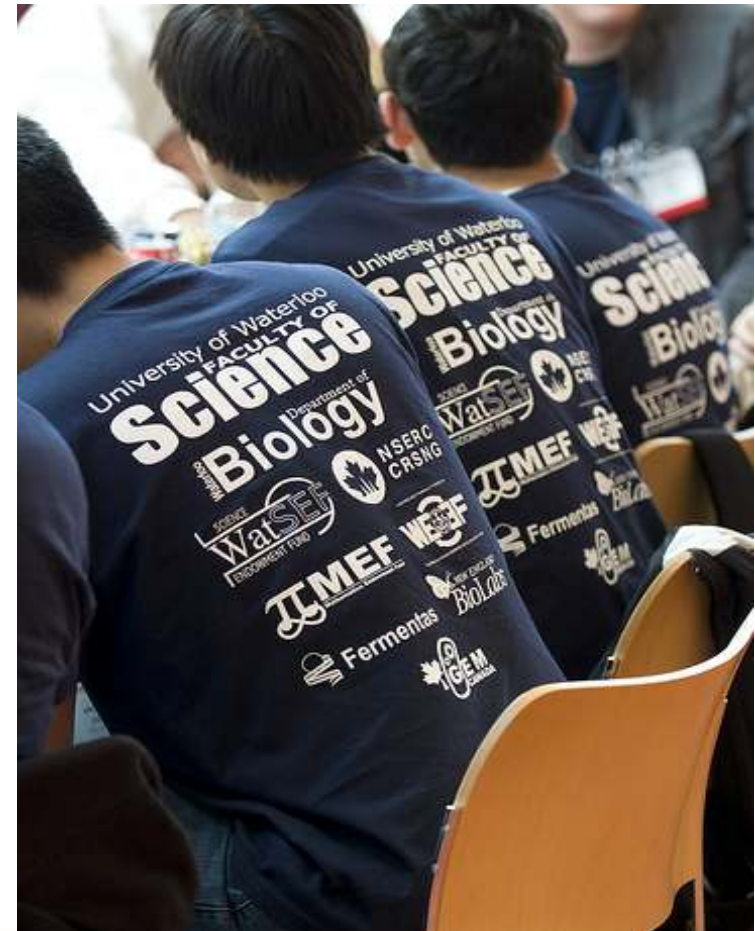
Support the Wits iGEM team

A financial contribution by your company to Wits iGEM will directly fund Wits undergraduates in learning and research. It will also increase your visibility and access to Wits students and faculty as well as the CSIR. Please make out your check to

What Your Company Can Buy (NB: please discuss the amounts)

R 35,000 will pay for sponsorship of one student fellowship. This fellowship will be awarded to an outstanding Honours student selected by Wits Faculty members after an extensive review process. Your sponsorship will be used to pay for research and travel expenses of that student. The fellowship will be entitled "your company"-Wits iGEM Fellowship. Acceptance of the "your company"-Wits iGEM Fellowship by the student will require a signed agreement that the student will be available to present their work at any

relevant company function.





What Your Company Can Buy cont.

R 70,000 will pay the salary of one teaching faculty mentor. This mentor will be critical in providing hands on assistance in the "learn as you go" research that will be conducted. The programme will be referred to as the "your company"-Wits iGEM Teaching Fellowship.

R 100,000 will pay for the sponsorship of the a seminar series open to public at Wits University during August/September. Topics will range from science and engineering to ethical, legal and social implications of synthetic biology research. The weekly seminar series will be called "your company- Wits iGEM seminar series". All references to the seminar series will include mention of your company's name.

R 200,000 will pay for sponsorship of a three week conference/training session in May/June 2010. The conference/training session will be called the "your company"-Wits iGEM Launch and will be open to the

entire Wits community as well as the CSIR and neighboring universities. All references to the conference / training session will include mention of your company's name.

Sponsorship Categories

All donors giving R 35,000 and more will be given mention on both the Wits and CSIR websites. Sponsors will fall into three categories based on their level of giving:

Silver Sponsor R 35,000 - R 69,000

Gold Sponsor R 70,000 - R 199,999

Platinum Sponsor R 200,000 and more

Platinum Sponsors will be referred to as Corporate Partners of the Wits iGEM team. For more information please contact: Dr. Raymond Sparrow, Tel: +27 12 841 4149, E-mail: rsparrow@csir.co.za



University of the Witwatersrand, Johannesburg

Wits, CSIR, Wits iGEM and Corporate Sponsors

Wits iGEM is officially recognized by the University of the Witwatersrand and the CSIR. The University of the Witwatersrand and the CSIR have made available certain resources such as lab space; however, without corporate sponsorship it will not be possible to have a Wits iGEM team. Overseas institutions rely heavily on the corporate donations to fund their iGEM teams; As the first African institution taking part in the iGEM competition, Wits iGEM would greatly appreciate your contribution. In exchange for your donation you will be recognized as an official sponsor and will be given access to Wits students and faculty. Platinum sponsors will also be allowed to make suggestions with regards to the actual research that occurs.



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