

# Research & development



There is a wide variety of jobs available in research & development (R&D), for the public and private sector. The former includes agricultural and food sciences, engineering and technology, biomedical sciences, and natural sciences. For the private sector, there is ongoing research in the manufacturing and services sector. There is also diversity in terms of researchers – teams come from all countries and work in public-sector research institutes and corporate R&D labs. The Novartis Institute for Tropical Diseases, for example, houses more than 100 researchers of 18 nationalities.





### Facts and figures

According to the Agency for Science, Technology and Research (A\*STAR), Singapore's overall expenditure on R&D grew by 26.5% to hit \$6.3bil in 2007, up from \$5bil in 2006. Along with the increased funding, Singapore's research talent base increased from 25,033 to 27,301 people, with the private sector employing more than half of all researchers. As of 2006, Singapore's R&D spending had surpassed some research-intensive countries such as Germany, and was approaching the same intensity of that in the US.

Apart from funding, the availability of high-tech facilities such as Biopolis, a 2.4mil square-foot research campus, also laid firm foundations for the development of R&D in the future.

### Job opportunities

With the record of \$6.3bil invested in R&D in 2007, there will be jobs aplenty despite the economic downturn. The government has stressed that the research will remain a key focus here, despite belt-tightening in other sectors. Look into positions in the life sciences field, since it has been promoted

to a higher priority in recent years with billions of dollars being pumped into the sector. The government has planned to create 15,000 jobs in the life sciences field by 2015. Within the private sector, electronics, semiconductors, information communications and consumer electronics have been affected by the economic downturn but there still remains a need for continued R&D.

Fresh graduates can look forward to jobs in some of the following companies:

#### Public sector:

- Agri-Food and Veterinary Authority of Singapore
- DSO National Laboratories
- A\*STAR
- National Healthcare Group
- Singapore Bioimaging Consortium
- SingHealth.

#### Private sector:

- Siemens Pte Ltd
- Philips Electronics Singapore Pte Ltd
- Chartered Semiconductor Manufacturing Ltd
- Hitachi Semiconductor Singapore
- Panasonic Group of Companies in Singapore.

Jobs for fresh graduates include:

- **Researcher:** involved in the conceptualisation or creation of new knowledge, products, processes, methods or systems, or involved in the management of research projects as a research scientist or engineer
- **Full-time postgraduate research students:** Master's or PhD students involved in research projects
- **Non-degree researchers:** involved in the research process at a more practical level
- **Technician:** puts technical knowledge to use in tasks under the supervision of researchers
- **Support staff:** positions such as craftsmen, secretarial or clerical while participating in research projects.

Depending on your previous experience and class of degree, your salary may begin at \$3,500 for a research officer. Salaries vary with the company you are in and your job scope.

Most of the research-based jobs require a postgraduate degree with a relevant major in university, but there are some entry-level exceptions, such as the position of a research officer, where you will need an upper second class honours bachelor's degree as a prerequisite.

Jobs in R&D require you to possess relevant knowledge, good communication skills and the ability to work well in teams.

#### Useful link

- **A\*STAR:** [www.a-star.edu.sg](http://www.a-star.edu.sg)