

BECOME A NEXT GENERATION SCIENTIST

STUDY BSc IN ADVANCED THERAPEUTIC TECHNOLOGIES

GET CAREER READY WITH RCSI'S NEW SCIENCE DEGREE BY FUSING THE LATEST SCIENTIFIC HEALTH DISCOVERIES WITH TRADITIONAL SCIENCE TO DEVELOP ADVANCED MEDICINES AND TECHNOLOGIES FROM LAB TO MARKET.

RCSI.COM

BSc IN ADVANCED THERAPEUTIC TECHNOLOGIES

DO YOU WANT TO BECOME A NEXT GENERATION SCIENTIST?

Do you love biology and health sciences, are interested in technology and would like to research and develop the latest medicines, treatments and health technologies? And as a highly sought-after graduate work in the thriving (bio) pharma industry in Ireland. If so, this is the course for you.

RCSI has re-imagined university science education to develop the next generation of future scientists capable of innovating and collaborating to deliver ground-breaking therapeutic medicines and technologies to address current and future global healthcare needs.

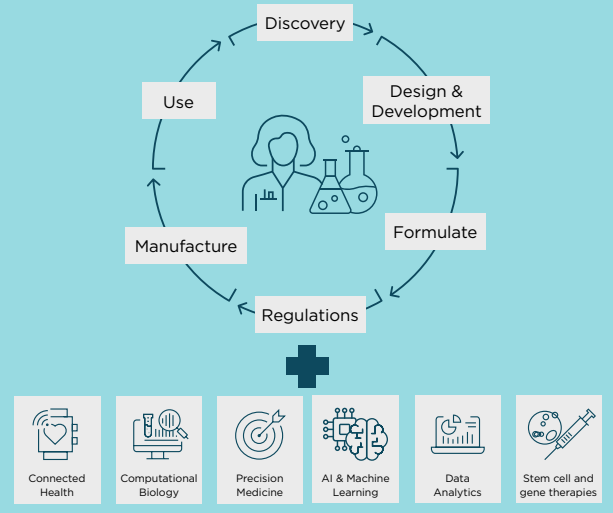
The 3 key pillars of this science degree are:

1. Gain extensive workplace relevant scientific knowledge in both traditional sciences and the latest advancements in medical therapies and technologies
2. 'Learn and Do' with hands-on practical laboratory skills and data analysis including NIBRT training*
3. Develop your power skills so you are workplace ready



DRUG LIFECYCLE

BScATT focuses on the latest scientific discoveries, not only deep diving each step of the drug life-cycle process, it layers in advanced therapeutics and technologies



RCSI LEADING THE WORLD TO BETTER HEALTH

WHAT MAKES THIS SCIENCE DEGREE DIFFERENT?



Gain the **scientific knowledge** and skills to develop the latest medicines, **treatments and health technologies** from **lab to market**



Take a **"Big Data"** approach to interpret **Genetic and Genomic data** to develop new medical therapies



Complete an **8 month industry placement** and gain **critical power skills** to be **career ready**

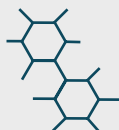
IRELAND GLOBAL PHARMA HUB

Ireland is the world's third largest exporter of pharmaceuticals, with nine out of ten of the world's biggest pharmaceutical companies having substantial operations here. You will gain a clear understanding of the pharma end-to-end ecosystem and be ideally qualified for a number of exciting roles in the ever growing (bio) pharma industry in Ireland and beyond.

BECOME A HIGHLY SOUGHT-AFTER GRADUATE

BScATT graduates are well qualified to apply for a range of exciting roles in the pharmaceutical industry and related sectors in areas such as Clinical Trial Management, Biomanufacturing, Data Analytics, Regulatory Affairs, Quality Assurance & Compliance, Scientific Research in Industry or Academia and Connected Health.

9 KEY AREAS COVERED IN THIS SCIENCE DEGREE



Fundamental Sciences:

The science of how the body works -Physiology, Biochemistry, Chemistry and Anatomy.

Pharmacology:
The science of drugs and how they work in the body.



Pharmaceuticals:
The science of drug delivery - ensuring medicines are delivered effectively to the correct body tissue.



Genetics & Genomics:

The role of genes in disease patterns of inheritance genetics for diagnosis and drug selection.



Precision Medicine:
Therapeutic treatments which are tailored to the individual -taking account of an individual's genes, environment and lifestyle.



Immunology:

How the immune system works in health & disease. The immune system is an important target of therapeutic intervention.

Power Skills:
Critical personal skills in competencies such as leadership, management and communication which enable success in the workplace.



Computational Biology/ Data Analytics:

Statistical analysis and interpretation of big datasets generated from healthcare settings using programming Languages such as Python and statistical environments such as R.



Connected Health: Wearable devices. Artificial Intelligence (AI) and machine learning in the context of health e.g. blood sugar monitors linked to smartphone Apps to maximize effectiveness of diabetes treatments.

Ciara Murphy**BSc Advanced Therapeutic Technologies**

I knew I wanted to do some sort of life science or pharmaceutical degree. I wanted to be able to obtain different skills other than those that are mainly lab based. That's the great thing about this course. You get to 'dip your toes' into everything; from fundamental sciences to data analytics to modules that improve your professional power skills. The industries you could go into after graduation are vast, from regulatory affairs, quality control and project management to data analytics, manufacturing and research & development, the opportunities are endless!

**Luke Doyle****BSc Advanced Therapeutic Technologies**

"My third year placement gave me great insight into the pharmaceutical industry. I have gained a practical understanding of the activities used in both R&D

and manufacturing. I also gained an understanding of all the components required to operate a GMP cleanroom facility."

THE IRISH TIMES ARTICLE:

Scan this QR code to check out a recent article in The Irish Times about this exciting science degree.

**FURTHER INFORMATION**

NFQ: Level 8

Award: BSc Advanced Therapeutic Technologies (Hons) (NUI & RCSI)

Awarding Body: National University of Ireland

Duration: 4 years

APPLICATIONS, FEES & SCHOLARSHIPS

- » Irish/EU school leaver applicants should apply @ www.cao.ie
- » All other applicants may apply through RCSI website.
- » Non EU Fees: €25,000 per annum (€7,000 per annum bursary available for self-funded students)

INDUSTRY WORK PLACEMENT

During your **8-month industry work placement** in Year 3, you will get to demonstrate, apply and further develop the technical knowledge, power skills and competencies in a **real work setting** and **build your professional network**.

*All students receive dedicated training in biopharma manufacturing methods at the National Institute for Bioprocessing Research and Training (NIBRT)

ENTERPRISE COLLABORATION

This degree has been designed in collaboration with a strong consortium of national and multinational bio pharma companies who provided their expertise to support the development of the BScATT curriculum which addresses critical skill gaps and maximizes future BioPharma related opportunities.

IF YOU WOULD LIKE MORE INFORMATION, PLEASE VISIT
WWW.RCSI.COM/ATT

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Should you have any questions,
Please contact us at admissions@rcsi.ie



Rialtas na hÉireann
Government of Ireland

This project has been supported by the Higher Education Authority under the Human Capital Initiative, Pillar 3. Grant agreement: 17796884 'Enabling Future Pharma'