

Edward Saunders, BSc (Hons)

STUDENT

EXPERIENCE

UNDERGRADUATE STUDENT RESEARCHER

University of South Wales | June 2019/20

2019

- Microbiology department
- Strain typing and disk diffusion testing for antibiotic resistance in water samples from across Wales

2018

- Genetics department
- Investigating antibiotic resistance in E.coli samples, and subsequent effect of gene cassettes on antibiotics resistance - Detection of MotA gene using qPCR

STUDENT MENTOR

University of South Wales | 2018-present

- Acted as a student mentor for new student sat USW, helping to relay information from student to faculty, and address any issues raised

EDUCATION

UNIVERSITY OF SOUTH WALES

BSc Human Biology (Hons) | 2017-2020

2nd year BSc

- Achieved a 2:1
 - Applied Physiology
 - Cellular Pathology and Disease Processes
 - Human Form and Function
 - Human Molecular Genetics
 - Medical Microbiology
 - Metabolism and Biochemistry

1st year BSc

- Achieved a 1st
 - Biological Chemistry
 - Biomedical Research Skills
 - Genetics and Evolution
 - Human Anatomy and Physiology
 - Human Growth and Development
 - Microorganisms and the Dynamic Cell

AWARDS AND ACHIEVEMENTS

- Course Representative Platinum certificate (2019 & 2020)
- Award of outstanding achievement in 1st year Human Biology
- Oracle iLearning Java foundations certificate
- National Citizens service (NCS)

REFERENCES

Tracie McKinney, BA, MA, PhD, SFHEA

- tracie.mckinney@southwales.ac.uk
- (01443) 4 82933

Darren Johnson, BSc (Hons), MRes, PhD, MRSB

- darrenjohnsonl@southwales.ac.uk
- (01443) 4 82819

Lewis Fall, BSc (Hons), PhD

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- (01443) 4 82106

Jeroen Nieuwland, MSc, PhD

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- (01443) 4 82468

CONTACT ME AT:

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BIOGRAPHY

Edward Saunders is a 21 year old Human Biology student investigating the effects of cannabinoids on dopamine-associated cytotoxicity commonly associated with Parkinson's Disease, and opioid use. His research aims to provide an insight into the neuroprotective effects of cannabinoids such as anandamide (AEA). This research quantifies the neuroprotective effects by comparing Tyrosine Hydroxylase (TyH) gene expression between planarian flatworm samples in 3 drug conditions; Methamphetamine (0.03uM, 0.06uM), AEA (2.5uM, 5uM), and combination (0.03uM MA + 5uM AEA, 0.06uM + 5uM AEA).

Edward's extracurricular activities include participation in the USW climbing and bouldering club, USW Gym bootcamp, metafit, and spin classes, as well as recent ventures in Brazilian jiu jitsu. Edward is also a part of a local clean-up initiative focused on litter picking in the community, and a dedication to reducing environmental impact wherever possible.

TESTIMONIALS

"Edward demonstrates all of the qualities I hope for in a course rep. He considers all of his classmates' positions equally and diligently reports them to the course team or SSCLG meetings. He responds to queries quickly and honestly, and is a fantastic liaison between the staff and students. Edward remains dedicated to his course even when he is going through difficult stages of his own studies, and for this he deserves recognition. His commitment to improving mental health in the university; alongside spearheading the campaign to improve budgets for student services. He has continued to work extremely hard to improve the students experience. Edward, I take my hat off to you sir."

SKILLS

Safe laboratory practice

- Safe working in microbiology labs
- Safe working in general labs

Understanding laboratory procedures

- Working with others
- Collecting results in the lab
- Following experimental protocols

Using Lab Equipment

- Use of general lab instrumentation
- Use of specialist instrumentation

Microscopy

- Preparation and analysis of slides
- Analysis of prepared slides

Aseptic Technique

- Preparation of microbiological cultures
- Safe handling of pathogens

Preparation of solutions

- Preparation of solutions of different molarities/concentrations
- Preparation of sterile solutions

Animal tissue dissection

- Safe handling of animal tissues (whole organisms)
- Dissection technique and recording

Data collection and analysis

- Experimental design
- Collection of experimental data

Project design

- Project proposal and hypothesis
- Appropriate health and safety requirements
- Ethical approval
- Communication of experimental results

DNA databases for sequence analysis

- DNA databases for sequence analysis
- Use of database for project design (e.g. primer sequences)

Experimental Techniques

- Spread plating
- Streak plating
- Aseptic technique
- Disk diffusion testing
- qPCR and PCR

A-LEVELS

Reigate College (A-Levels)

- Biology (AS/A2)
- Chemistry (AS/A2)
- Computing (AS/A2)
- Psychology (AS)



PLATINUM CERTIFICATE



Edward Saunders

is hereby recognised for their contribution in
representing their peers during the academic year 2018/19
through their role as

Course Representative

Thanks to their involvement with the role, this
individual has gained the following skills:



Effective
Representation



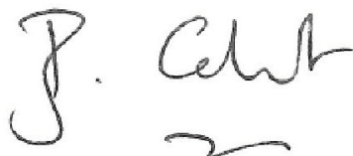
Communication



Time
Management



Meeting
Skills



Ben Calvert,
Pro Vice-Chancellor



Mishan Wickremasinghe
Students' Union President

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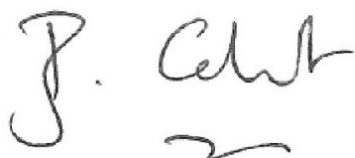
Communication



Time
Management



Meeting
Skills



Ben Calvert,
Pro Vice-Chancellor



Mishan Wickremasinghe
Students' Union President

Certificate of Outstanding Achievement

This is to certify that

Edward Saunders

has been awarded the Prize for

Top Marks in Year One Human Biology

Signed: *Tracie McKinnon*

Date: *20/09/2018*



AWARD of ACHIEVEMENT

PRESENTED TO

Edward Saunders

FOR SUCCESSFULLY COMPLETING THE ORACLE ACADEMY

Java Fundamentals

FINAL EXAM

January 2017

JHodgson

A stylized, handwritten signature in dark ink, appearing to be "JHodgson".

Oracle Academy Instructor



PRESENTED TO

Edward Saunders

IN RECOGNITION OF THE CONTRIBUTION
THAT YOU HAVE MADE TO YOUR COMMUNITY
AND TO YOUR COUNTRY BY COMPLETING
NATIONAL CITIZEN SERVICE 2016

Signed

A handwritten signature in black ink, appearing to be "T. May", written over a horizontal line.

Rt Hon Theresa May MP Prime Minister