James Perry | Curriculum Vitae

Center For Applied Synthetic Biology – Concordia University
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Education

Concordia University — **Montreal, Canada**
PhD Candidate in Biology, Supervised by Dr. Steve Shih — *2017–present*

Concordia University — **Montreal, Canada**
BSc in Biology — *2014–2017*

Experience

Veraxa Biotech GmbH — **Heidelberg, Germany**
2-week internship — *April 2022*

Publications

Journal Articles

2023: László Kékedy-Nagy, **James M. Perry**, Samuel R. Little, Oriol Y. Llorens, and Steve C.C. Shih. An electrochemical aptasensor for Δ9-tetrahydrocannabinol detection in saliva on a microfluidic platform. *Biosensors and Bioelectronics*, volume 222, page 114998. Elsevier, 2023.

2022: Alaa S. Selim, **James M. Perry**, Mohamed A. Nasr, Jay M. Pimprikar, and Steve C.C. Shih. A Synthetic Biosensor for Detecting Putrescine in Beef Samples. *ACS Applied Bio Materials*, volume 5, pages 5487–5496. American Chemical Society, 2022.

2022: Fatemeh Ahmadi, Mohammad Simchi, **James M. Perry (additionally designed journal front cover)**, Stephane Frenette, Habib Benali, Jean Paul Soucy, Gassan Massarweh, and Steve C.C. Shih. Integrating machine learning and digital microfluidics for screening experimental conditions. *Lab on a Chip*, volume 23, pages 81–91. Royal Society of Chemistry, 2022.

2021: **James M. Perry**, Guy Soffer, Raja Jain, and Steve C.C. Shih. Expanding the limits towards 'one-pot' DNA assembly and transformation on a rapid-prototype microfluidic device. *Lab on a Chip*, volume 21, pages 3730–3741. Royal Society of Chemistry, 2021.

2021: Guy Soffer, **James M. Perry**, and Steve C.C. Shih. Real-time optogenetics system for controlling gene expression using a model-based design. *Analytical Chemistry*, volume 93, pages 3181–3188, feb 2021.

2021: Samuel R. Little, **James M. Perry**, Kenza Samlali, and Steve C.C. Shih. CHAPTER 8: Droplet Microfluidics: Applications in Synthetic Biology. *RSC Soft Matter*, volume 2021-January, pages 193–222, 2021.

2019: Ehsan Moazami, **James M. Perry**, Guy Soffer, Mathieu C. Husser, and Steve C.C. Shih. Integration of World-to-Chip Interfaces with Digital Microfluidics for Bacterial Transformation and Enzymatic Assays, 2019.

In Conference Proceedings

2020: **James M. Perry**, Guy Soffer, and Steve C.C. Shih. Rt-ogene: a Real-time Optogenetics System for Controlling Gene Expression Using Model-based Design. 2020.

2019: **James M. Perry**, Guy Soffer, Ehsan Moazami, and Steve C.C. Shih. Pathway engineering using rapid-prototype digital microfluidics. pages 931–932. Chemical and Biological Microsystems Society, 2019.

2018: **James M. Perry**, Guy Soffer, and Steve C.C. Shih. Automated 'Building' Using Rapid-Prototype Digital Microfluidics. 2018.

Talks

2023: Biology Department: Weekly student talks, Concordia University - "Expediting Synthetic Biology with Microfluidics and Optogenetic"

2021: BiophysiQ Symposium, McGill University - "A cloning machine using DIY microfluidics"

2019: Pint of Science Montreal - "Microfluidics for Automating Synthetic Biology"

Fellowships & Awards

2021: BiophysiQ Symposium, McGill University - Outstanding talk, awards committee $100

2020: Sensors (MDPI) - Outstanding Sensors and Actuators, Detection Technologies Poster Award, MicroTAS 2020 awards committee, $1000

2019, 2018: Conference and Exposition Award – Concordia University, Recommendation from the Department of Biology, $1000 each year

2017: Faculty of Arts and Science Graduate Fellowship – Concordia University, Recommendation from the Department of Biology, $7000

Computer skills

Software: AutoCAD, Fusion 360, Blender, InkScape

Programming Languages: Python, Arduino (C), LaTex

Web Technologies: HTML 5, CSS, JavaScript

Audio and Video: Reaper, Logic Pro X, Davinci Resolve

Teaching Assistantships

BIOL 461: Advanced Genetics — *Winter, 2023:*
Dr. William Zerges

COEN 434: Microfluidic Devices for Synthetic Biology — *Fall, 2022, 2021, 2020:*
Dr. Steve Shih

BIOL 631: Tools of Synthetic Biology — *Fall, 2022, 2021, 2020:*
Orly Weinberg - SynBioApps

BIOL 466: Advanced Techniques in Molecular Biology — *Fall, 2022, 2021:*
Dr. Aida Abu-Baker, Dr. Chiara Gamberi

BIOL 364: Cell Physiology — *Summer, 2020:*
Dr. Chiara Gamberi

Biol 261: Molecular And General Genetics — *Winter, 2020:*
Dr. Donald Grey Stirling

Biol 227: Laboratory Studies In Biodiversity — *Winter, 2019:*
Dr. Donald Grey Stirling

Guest Lectures

BIOL 261: Molecular and General Genetics — *Winter, 2023:*
Dr. Andrew Wieczorek

BIOL 201: Introductory to Biology — *Winter, 2023:*
Dr. Ian Furguson

BIOL 466: Advanced Techniques in Molecular Biology — *Fall, 2022:*
Dr. Aida Abu-Baker

BIOL 631: Advanced Topics in Biotechnology: Tools of Synthetic Biology — *Fall, 2021:*
Orly Weinberg - SynBioApps

BIOL 524: High-throughput Instrumentation: Tools of Synthetic Biology — *Winter, 2018:*
Dr. David Kwan

References

Dr. Steve Shih
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Dr. David Walsh
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