F. Max Yavitt

Department of Chemical and Biological Engineering
University of Colorado – Boulder
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EDUCATION

Ph.D. – Chemical Engineering Aug. 2017 - Present
University of Colorado – Boulder
Advisor: Dr. Kristi Anseth
Cumulative GPA: **3.67/4.00**

M.Sc. – Chemical Engineering Aug. 2017 – May 2019
University of Colorado – Boulder

B.Eng – Chemical Engineering, minor in Biosciences Sept. 2012 – May 2017
McMaster University, Hamilton, Ontario
Cumulative GPA: **3.91/4.00**

RESEARCH EXPERIENCE

Graduate Research Assistant Aug. 2017 - Present
Dr. Kristi Anseth, Chemical and Biological Engineering, University of Colorado Boulder
- Dynamic hydrogels to promote colony and crypt formation in intestinal organoids

Senior Independent Research Sept. 2016 – May 2017
Dr. Todd Hoare, Chemical Engineering, McMaster University
- Synthesis of amphiphilic block copolymers for drug delivery applications

NSF Research Experience for Undergraduates Summer 2016
Dr. Ivan Gitsov, Chemistry, State University of New York - College of Environmental Science and Forestry
- Synthesis of linear-dendritic block copolymers as nano-reactors for Suzuki-Miyaura coupling reactions

NSF Research Experience for Undergraduates Summer 2015
Dr. Russell Composto, Materials Science and Engineering, University of Pennsylvania
- Development of methods to track and quantify diffusion of nanoparticles in well-defined networks

Undergraduate Research Assistant Summer 2014
Dr. Todd Hoare, Chemical Engineering, McMaster University
- Synthesis and characterization of lignin hydrogels

Undergraduate Research Assistant Summer 2013
Dr. Todd Hoare, Chemical Engineering, McMaster University
- Optimization of hydrogel bead production for cell encapsulation

PUBLICATIONS

6) E.A. Hushka, **F.M. Yavitt**, T.E. Brown, P.J. Dempsey, K.S. Anseth, "Relaxation of Extracellular Matrix Forces Directs Crypt Formation and Architecture in Intestinal Organoids". Under review, August 2019
5) **F.M. Yavitt**, T.E. Brown, E.A. Hushka, N. Gjorevski, P.J. Dempsey, M.P. Lutolf and K.S. Anseth, "The effect of thiol structure on allyl sulfide photodegradable hydrogels and the use as a degradable scaffold for intestinal organoid passaging". Under review, August 2019.
4) N. Gjorevski, T.E. Brown, M. Nikolaev, F.W. DelRio, **F.M. Yavitt**, K.S. Anseth and M.P. Lutolf, "Deterministic organoid patterning". *Science*, in revision.
3) T.E. Brown, J.A. Silver, B. Worrell, I. Marozas, **F.M. Yavitt**, K.A. Gunay, C.N. Bowman and K.S. Anseth, "Secondary photocrosslinking of click hydrogels to probe myoblast mechanotransduction in three dimensions". *J. Am. Chem. Soc.*, 2018, 140(37), 11585-11588.

2) N.M. Smeets, M. Patenaude, D. Kinio, **F.M. Yavitt**, E. Bakaic, F. C. Yang and T. Hoare, "Injectable hydrogels with in situ-forming hydrophobic domains: oligo (D, L-lactide) modified poly (oligoethylene glycol methacrylate) hydrogels". *Polym. Chem.*, 2014, 5(23), 6811-6823.

1) N.M. Smeets, E. Bakaic, **F.M. Yavitt**, F. C. Yang, M.C. Rheinstädter and T. Hoare, "Probing the internal morphology of injectable poly (oligoethylene glycol methacrylate) hydrogels by light and small-angle neutron scattering". *Macromolecules,* 2014, 47(17), 6017-6027.

PRESENTATIONS

Cell Symposia: Engineering Organoids and Organs Aug. 2019
Poster and Oral Presentation - "Controlled hydrogel photodegradation improves colony formation of intestinal organoids"
San Diego, California

McMaster University Chemical Engineering Senior Thesis Presentation Apr. 2017
Oral Presentation – "Synthesis of PNIPAM-b-HEA block copolymers as drug delivery vehicles"
McMaster University – Hamilton, ON

Syracuse University Undergraduate Symposium Aug. 2016
Poster - "Novel linear-dendritic nano-reactors facilitate environmentally friendly Suzuki-Miyaura reactions"
Syracuse University - Syracuse, NY

Syracuse Summer 2016 Undergraduate Research Poster Session Aug. 2016
Poster - "Multifunctional linear-dendritic supermolecules for diverse applications"
Syracuse University - Syracuse, NY

NanoBio Interface Center Research Symposium Aug. 2015
Oral Presentation - "Investigating the diffusion behavior of nanoparticles in polymer gels"
University of Pennsylvania - Philadelphia, PA

AWARDS

Graduate Assistantships in Areas of National Need (GAANN) - University of Colorado Boulder	2019-20
NSF Graduate Research Fellowship Program, Honorable Mention	2019
Dean's Outstanding Merit Fellowship - University of Colorado Boulder	2017
The University (Senate) Scholarship - McMaster University	2015-16
Marauder Scholar - McMaster University	2012-16
Dean's Honour List - McMaster University	2012-16
The University (Senate) Scholarship - McMaster University	2012-13

TEACHING / MENTORING EXPERIENCE

Advanced Teaching Assistant – Material and Energy Balances (CHEN 2120), University of Colorado Boulder — Fall 2019
Teaching Assistant – Biomaterials (CHEN 4805), University of Colorado Boulder — Spring 2018
Graduate Student Research Mentor – Anseth Lab, University of Colorado Boulder, three students — 2018-19
High School Student Research Mentor - Boulder Valley School District Science Fair, two students — 2018-19

SCIENCE OUTREACH

Science Research Symposium Judge – Boulder, CO	2018, 2019
Corden Pharma Science Fair Judge - Boulder, CO	2018, 2019
Co-organizer of Student Annual Research Symposium (StARS) – CU Boulder	2018, 2019
Expanding Your Horizons Event Volunteer - CU Boulder	2018, 2019
CU Science Discovery Lecture and Demo – CU Boulder	2018, 2019
High Peaks Elementary Science Fair Judge - Boulder, CO	2017

VOLUNTEER EXPERIENCE

First Year Graduate Student Mentor 2018
Boulder Valley Lacrosse, Skills Development Coach 2018

Israel Lacrosse Association, Intern/Youth Coach Summer 2017

ACTIVITIES

McMaster University Men's Lacrosse (Captain 2014-2016) 2012-2016
Hamilton, Ontario Junior B and C Lacrosse Teams Summer 2014