Tobin Elliott Brown

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

Ph.D. - Chemical Engineering (2013- current)

University of Colorado - Boulder

Advisor: Kristi Anseth

Current GPA: 4.0

B.Eng. - Chemical Engineering (2009-2013)

McGill University, Montreal, Quebec

Cumulative GPA: 3.90

AWARDS

2014 – NIH/CU Molecular Biophysics Training Scholarship **T32 GM-065103**

2013 - NSERC Postgraduate Studies M Scholarship ($17,300)

2013 - Dean's Outstanding Merit Fellowship - CU Boulder PhD program ($5,000)

2009-2013 – Dean's Honour List – McGill University (top 10% in faculty)

2012 - McGill EUL undergraduate research scholarship ($5,750)

2009-2013 - JW McConnell Scholarship – McGill University ($3,000/year)

2009 - National Merit Scholar ($2,500, *declined to study in Canada*)

2009 - U.S. Presidential Scholar Semifinalist

2008 - Perfect Score (36) on the ACT

PUBLICATIONS: (*) denotes equal contribution

McKinnon, D., Domaille, D., **Brown, T.**, Kyburz, K., Kiyotake, E., Cha, J., Anseth, K. S., "Measuring Cellular Forces Using Bis-Aliphatic Hydrazone Crosslinked Stress-Relaxing Hydrogels." *submitted to Soft Matter*

McKinnon, D. *, **Brown, T.***, Kyburz, K., Kiyotake, E., Anseth, K. S., "Design and Characterization of a Synthetically Accessible, Photodegradable Hydrogel for User-Directed Formation of Neural Networks." *Biomacromolecules*, **2014**, *15* (7), pp 2808–2816

Storms, Z. J., **Brown, T.**, Cooper, D. G., Sauvageau, D. and Leask, R., "Impact of the cell life-cycle on bacteriophage T4 infection". *FEMS Microbiology Letters*, **2014** ,353: 63–68.

Storms, Z. J., **Brown, T.**, Sauvageau, D. and Cooper, D. G. (2012), "Self-cycling operation increases productivity of recombinant protein in *Escherichia coli". Biotechnol. Bioeng.*, **2012**, 109: 2262–2270.

PRESENTATIONS

Poster – Light Wavelengths to Control the Release of Multiple Growth Factors, Society for Biomaterials Annual Meeting, Denver (2014)

WORK EXPERIENCE

Research Assistant (2013-current)
Professor Kristi Anseth, Chemical and Biological Engineering, CU Boulder

- Functional hydrogels for the culture and directed growth of embryonic stem cell-derived motor neurons.

Research Assistant (summer 2012)
Professor Richard Leask, Chemical Engineering, McGill

- EUL Scholarship research grant
- Studied the effect of host cell synchronization on bacteriophage replication and recombinant protein production

Research Assistant (summer 2011)
Professor David Cooper, Chemical Engineering, McGill

- Performed synthesis and biodegradation of potential "green" plasticizers and analysis of metabolites

Previous Employment

- **Railway laborer (summer 2010)** Remcan Projects, Ltd, Mont-Joli, Quebec
- **Waiter (summer 2010)** Cadillac Grille, Jackson, Wyoming
- **Ranch worker (summer 2009)** Mead Ranch, Jackson, Wyoming
- **Construction worker (summer 2008)** Teton Heritage Builders, Jackson, Wyoming

TEACHING EXPERIENCE

Teaching Assistant: General Chemistry for Engineers & Chemical Engineering Kinetics (Spring 2014)

PROFESSIONAL SERVICE

Article reviewer: *Biomacromolecules*

Member: Society for Biomaterials, American Institute of Chemical Engineers

SCIENCE OUTREACH

Boulder Valley School District science fair judge (senior level) – 2014

Google's LabTV project: Biographical sketch to encourage top students to enter the medical research field

Manager of Anseth group website and Twitter account, @AnsethGroup

VOLUNTEER EXPERIENCE

Undergraduate Tutor – Material and Energy Balances

Engineers Without Borders Canada (School outreach program)

McGill Tech Fair

Jackson Youth Hockey Assistant Coach

Habitat for Humanity

- Volunteer in the ReStore in Jackson and on Saturday build days

ACTIVITIES

University: Quebec Engineering Competition 2013, Engineering E-week committee, mentor in chemical engineering Godfather program

Recreational: ice hockey, softball, ultimate Frisbee, guitar, chess, hiking, mountain biking