
Timothy J. Marquis

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EDUCATION

University of Connecticut, Farmington, CT 2016-2020 (anticipated)
M.D. Candidate

University of New Hampshire, Durham, NH 2011-2015
B.S., Biomedical Science: Medical and Veterinary Sciences, Honors Program
GPA: 3.94

WORK AND RESEARCH EXPERIENCE

Research Technician – Sower Laboratory 5/2015 – 5/2016

University of New Hampshire, Durham, NH

- Lab management, supervising and maintaining lab infrastructure, training undergraduate and graduate students on various molecular and histological techniques (*i.e.*, radioimmunoassay, tissue collection, processing and storage, cryosectioning, riboprobe design and synthesis, *in-situ* hybridization, immunohistochemistry, semi-quantitative analysis, histology, electron microscopy, PCR), oral presentations, writing and publication. PI: Stacia A. Sower, PhD.

Undergraduate Research Student – Sower Laboratory 9/2011 – 5/2015

University of New Hampshire, Durham, NH

- Radioimmunoassay, tissue collection, processing and storage, cryosectioning, riboprobe design and synthesis, *in-situ* hybridization, immunohistochemistry, semi-quantitative analysis, histology, electron microscopy, PCR, oral presentations, writing and publication, lab maintenance, management, and infrastructure. Advisor: Stacia A. Sower, PhD.

Visiting Undergraduate Research Student – Sabatini Laboratory 5/2014 – 8/2014

Whitehead Institute, Massachusetts Institute of Technology, Cambridge, MA

- Tissue culture, Gibson assembly, polymerized chain reaction (PCR), gel extraction, protein purification, and mass spectroscopy. Advisor: Michael Pacold, MD, PhD.

ACADEMIC/TEACHING EXPERIENCE

General Biochemistry, Peer Led Team Learning (PLTL) – Coordinator 6/2015 – 5/2016

University of New Hampshire, Durham, NH

- Coordinator of General Biochemistry PLTL, led the creation of this new UNH program; assign about 150 students to groups; hold weekly leader meetings to review material and discuss group progress.

Advisor: Christopher F. Bauer Ph.D., Professor, Department of Chemistry, UNH

ACADEMIC/TEACHING EXPERIENCE (continued)

Organic Chemistry I and II, Peer Led Team Learning (PLTL) – Coordinator and Peer Leader 1/2014 – 5/2015

University of New Hampshire, Durham, NH

- Head Coordinator of Organic Chemistry PLTL, led the creation of this new UNH program; assign over 190 students to groups; hold weekly leader meetings to review material and discuss group progress.
- Lead and mentor an assigned group of organic chemistry students through weekly collaborative workshop sessions

Advisor: Christopher F. Bauer Ph.D., Professor, Department of Chemistry, UNH

General Chemistry I and II, Peer Led Team Learning (PLTL) – Peer Leader 9/2012 – 12/2014

University of New Hampshire, Durham, NH

- Lead and mentor an assigned group of general chemistry students through weekly collaborative workshop sessions

Advisor: Christopher F. Bauer Ph.D., Professor, Department of Chemistry, UNH

RESEARCH PUBLICATIONS

Marquis, Timothy J., Masumi Nozaki, and Stacia A. Sower. 2016. Comprehensive histological and immunological studies reveal a novel glycoprotein hormone and thyrostimulin expressing proto-glycotrope in the sea lamprey pituitary. *Cell & Tissue Research*. [PubMed](#)

Aytur, Semra, **Timothy Marquis**, Philip Bors, Richard Bell, and Julia Katz. The role of health-community investing as an active living policy implementation strategy. *Environment and Behavior* 48, 89-110. [SagePub](#)

Sower, Stacia A., Wayne A. Decatur, Krist N. Hausken, **Timothy J. Marquis**, Shannon L. Barton, James Gargan, Mihael Freamat, Michael Wilmot, Lian Hollander, Jeffrey A. Hall, Masumi Nozaki, Michal Shpilman, and Berta Levavi-Sivan. 2015. Emergence of an ancestral glycoprotein hormone in the pituitary of the sea lamprey, a basal vertebrate. *Endocrinology* 156, 3026-3037. [PubMed](#)

Morin, Scott J., Wayne A. Decatur, Timothy S. Breton, **Timothy J. Marquis**, Mary K. Hayes, David L. Berlinsky, and Stacia A. Sower. 2015. Identification and expression of GnRH2 and GnRH3 in the black sea bass (*Centropristis striata*), a hermaphroditic teleost. *Fish Physiology and Biochemistry* 2:383-395. [PubMed](#)

Hall, Jeffrey A., Wayne A. Decatur, Dana Daukss, Mary K. Hayes, **Timothy Marquis**, Scott Morin, and Stacia A. Sower. 2013. Expression of three GnRH receptors in specific tissues in male and female sea lampreys *Petromyzon marinus* at three distinct life stages. *Frontiers in Neuroscience* 7:1-9. [PubMed](#)

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PRESENTATIONS

Marquis, Timothy J. *Identification of a Proto-Pluritropic Cell Type and its Expression of Novel Glycoprotein Hormones in the Pituitary of the Basal Vertebrate, the Sea Lamprey.* North American Society for Comparative Endocrinology (NASCE), Research Conference, University of Ottawa, Ottawa, Ontario, Canada. Poster presentation. June 2015.

Marquis, Timothy J. *Identification of a Proto-Pluritropic Cell Type and its Expression of Novel Glycoprotein Hormones in the Pituitary of the Basal Vertebrate, the Sea Lamprey.* Undergraduate Research Conference, University of New Hampshire, Durham, NH. Oral presentation. April 2015.

Marquis, Timothy J. *Distribution and expression of glycoprotein hormone subunits, GpA2, GTH β , and GpB5, in the sea lamprey, *Petromyzon marinus*.* Undergraduate Research Conference, University of New Hampshire, Durham, NH. Poster presentation. April 2014.

Marquis, Timothy J. *Expression of three GnRH receptors in specific tissues in male and female sea lampreys *Petromyzon marinus* at three distinct life stages.* New England Endocrine Conference, University of New Hampshire, Durham, NH. Poster presentation. September 2013.

HONORS AND AWARDS

UConn School of Medicine – Admissions Merit Scholarship	2016
Golden Key International Honor Society	2013 – 2015
Phi Sigma National Biological Sciences Honor Society	2012 – 2015
UNH Hamel Scholar	2012 – 2015
UNH Dean’s List – Highest Honors (3.7+ GPA)	2011 – 2015
UNH Presidential Scholarship	2011 – 2015
UNH University Honors Program Presidential Scholar	2015
UNH College of Life Sciences and Agriculture (COLSA) Class Marshal	2015
UNH Award of Excellence	2015
Martha and Theodore Frizzell Scholarship	2014
UNH Create Your Own Story (CYOS) Award	2014
Barry Goldwater Scholar	2014
Benjamin Bronstein Endowed Scholarship	2014
UNH Undergraduate Research Award (URA)	2014
Dickie Family Scholarship	2013
Barry Goldwater Scholarship Award (Honorable Mention)	2013
UNH Undergraduate Research Award (URA)	2013
UNH Research Experience and Apprenticeship Program (REAP) Award	2012
Dickie Family Scholarship	2012
National Ski Patrol Young Adult Patroller of the Year Award (National 2nd Runner-up)	2012

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INTERNSHIPS/JOB SHADOWS

- Portsmouth Regional Hospital, Portsmouth, NH 2014 – 2016
- In conjunction to volunteering, shadowed gastroenterologists treating patients in the Endoscopy Clinic.
- Portsmouth Regional Hospital, Portsmouth, NH Summer 2012
- Participated in rotations with physicians, nurses, anesthesiologists, medical technicians and patients in various medical specialties, including Hematology/Oncology, Neurosurgery, and Internal Medicine (Primary Care); Hospital Laboratories: chemistry, blood bank, microbiology; Palliative Care, Cardiology

SERVICE ACTIVITIES

- Crotched Mountain Ski Resort 2006 – Present
- Ski Patrol: General mountain safety; supervise and staff special events
- University of New Hampshire 2012 – 2015
- Hamel Scholars Program: Various service projects throughout the state, local and campus communities;
Current project: Research on affordability of university education, presented to UNH president and trustees.
- Portsmouth Regional Hospital 2014 – 2016
- Volunteer in Endoscopy: patient check-in, pre/post-operation room setup, patient transport, preparing snacks for patients (post-operation), and stocking medical supplies.

AFFILIATIONS/MEMBERSHIPS

- National Ski Patrol, *Member* 2008 – Present
- UNH Symphony Orchestra
- Principal Bassoonist* 2012 – 2015
- Rotating Principal Bassoonist* 2011 – 2012
- Nashua Symphony Association, Board of Trustees, *Ex-Officio Trustee* 2010 – 2011
- NH Philharmonic, *Substitute Bassoonist* 2014

CERTIFICATIONS

- Outdoor Emergency Care (OEC) Technician 2008 – Present
- Cardiopulmonary Resuscitation (CPR) / Automated External Defibrillation (AED) 2008 – Present
- Radiation Worker, University of New Hampshire 2011 – 2016
- Animal Care and Use, University of New Hampshire 2011 – 2016
- Hazardous Waste Management, University of New Hampshire 2011 – 2016

TECHNICAL AND SPECIALIZED SKILLS

- Real-Time Polymerized Chain Reaction (qPCR)
- Reverse Transcription Polymerized Chain Reaction (RT-PCR)
- Polymerized Chain Reaction (PCR)
- *In-Situ* Hybridization (ISH)
- Fluorescent *In-Situ* Hybridization (FISH)
- Gibson Assembly
- Transmission Electron Microscopy
- Radioimmunoassay (RIA)
- Histology
- Immunohistochemistry (IHC)
- Confocal Microscopy
- General Microscopy