

**NORTHEASTERN UNIVERSITY**  
**2009 Research and Scholarship Expo**

**Expo Student Presenter Winners and Runner-Ups**

**March 26, 2009**

**Computer and Information Sciences**

***Graduate, Winner***

**Virtual Nurse Agents for Hospital Discharge**

**Lead Presenter:** Laura Pfeifer

**Faculty Advisor:** Dr. Timothy Bickmore

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***Undergraduate, Winner***

**Congestion Control Algorithms**

**Lead Presenter:** Yamani Jana

**Other Presenters:** Ala Harelik

**Faculty Advisor:** Christopher King

## **Engineering and Technology**

### ***Graduate, Runner-Up***

#### **Accelerating the Verification of Multicore Cache Coherence Protocols using FPGAs**

**Lead Presenter:** Mary Ellen Fuess

**Faculty Advisor:** Miriam Leeser

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### ***Graduate, Winner***

#### **Highly Flexible and Biocompatible SWNT Thin Film Transistor for Wearable and Implant Devices**

**Lead Presenter:** Selvapraba Selvarasah

**Other Presenters:** Kyle Anstey  
Mehmet Dokmeci  
Chenfu Guo

Ahmed Busnaina  
Somu Sivasubramanian

**Faculty Advisor:** Mehmet R. Dokmeci

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### ***Undergraduate, Runner-Up***

#### **Adhesion of Graphene Sheet with Crystallography Registry and Misorientation**

**Lead Presenter:** Yung Kong Fan

**Other Presenters:** Zong Zong

**Faculty Advisor:** Prof. Kai-tak Wan

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### ***Undergraduate, Winner***

#### **In-Situ Surface Characterization with RHEED-TRAXS**

**Lead Presenter:** Martina List

**Other Presenters:** Bing Sun

**Faculty Advisor:** Dr. Katherine S. Ziemer



**Humanities and Arts**

***Graduate, Runner-Up***

**Reconnecting City + Office**

**Lead Presenter:** Jason Neves

**Faculty Advisor:** Tiffany Lin

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***Graduate, Winner***

**Park House**

**Lead Presenter:** Aleta Budd

**Faculty Advisor:** Tiffany Lin

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***Undergraduate, Runner-Up***

**Consequences of 1960's Urbanism: Project for New Bedford YMCA**

**Lead Presenter:** Chris Sledziona

**Faculty Advisor:** Tom S. Chung AIA LEED AP

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***Undergraduate, Winner***

**Urban Housing**

**Lead Presenter:** Ying Xu

**Faculty Advisor:**

## **Interdisciplinary Topics, Centers and Institutes**

### ***Graduate, Runner-Up***

#### **Recommendations to Improve an HIV Medication Adherence Curriculum Using an Adapted Community-Based Participatory Research (CBPR) Model: Data from a Pre-pilot Study of 10 HIV-Positive Adults**

**Lead Presenter:** Ashley Weagraff

**Other Presenters:** Leah Jacobs Erin Rowe

**Faculty Advisor:** Hortensia Amaro, Ph.D.

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### ***Graduate, Winner***

#### **Controlling a lamprey-based robot with an electronic nervous system.**

**Lead Presenter:** Anthony Westphal

**Other Presenters:** David Brady Mark Hunt  
Nikolai Rulkov

**Faculty Advisor:** Dr. Joseph Ayers

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### ***Undergraduate, Runner-Up***

#### **Measurements of Shifts in Characteristic Frequency as a Function of Level using Chirp-Evoked Otoacoustic Emissions**

**Lead Presenter:** Luke Shaheen

**Other Presenters:** Ikaro Silva

**Faculty Advisor:** Dr. Michael Epstein

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### ***Undergraduate, Winner***

#### **Spain and the Genesis of the Cold War**

**Lead Presenter:** Tom Cinq-Mars

**Faculty Advisor:** Jeffrey Burds, Ph.D.

## Physical and Life Sciences

### *Graduate, Runner-Up*

#### **Anti-Inflammatory Effects of $\alpha 4\beta 2$ Nicotinic Receptor Activation Revealed Through Microarray Analysis of Nicotine-Induced Gene Changes**

**Lead Presenter:** Vishnu Hosur

**Other Presenters:** Adham Abutaha Vishnu Hosur  
Scott Lapanen

**Faculty Advisor:** Dr. Ralph H Loring

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### *Graduate, Winner*

#### **Drug DNA interactions – View with Optical Tweezers**

**Lead Presenter:** Thayaparan Paramanathan

**Other Presenters:** Micah J. McCauley Ioulia Rouzina  
Ioana D. Vladescu

**Faculty Advisor:** Dr. Mark C. Williams

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### *Undergraduate, Runner-Up*

#### **Evidence for Polymerase Switching in Early Zebrafish Development**

**Lead Presenter:** Sean Fortier

**Other Presenters:** Richard Bennett Yi Wang  
Xiaojie Yang

**Faculty Advisor:** Dr. Phyllis R. Strauss

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### *Undergraduate, Winner*

#### **Cytopathology by Optical Methods: Spectral Cytopathology of the Oral Mucosa**

**Lead Presenter:** Kostas Papamarkakis

**Other Presenters:** Benjamin Bird Max Diem  
Milos Miljkovic Kostas Papamarkakis  
Jennifer Schubert Kristi Bedrossian, Tufts Medical Center  
Nora Laver, Tufts Medical Center

**Faculty Advisor:** Dr. Max Diem

**Social Sciences, Business and Law**

***Graduate, Runner-Up***

**Language Universals in Speakers' Brains: Evidence from a Learning Experiment**

**Lead Presenter:** Tracy Lennertz

**Faculty Advisor:** Dr. Iris Berent

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***Graduate, Winner***

**Political Institutions & Grassroots Development: The Political Economy of Microfinance**

**Lead Presenter:** Kristen Hudak

**Faculty Advisor:** Kirsten Rodine-Hardy

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***Undergraduate, Runner-Up***

**Information Strategy: the 10 Principles for a Competitive Information**

**Lead Presenter:** Paul Boutry

**Other Presenters:** Claire Derelle

**Faculty Advisor:** Yang W. Lee

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***Undergraduate, Winner***

**Perceiving Emotions in Dance: An Analysis of the Differences in Nonverbal Accuracy  
between Dancers and Non-Dancers**

**Lead Presenter:** Vanessa Castro

**Faculty Advisor:** Dr. Judith Hall