

# Nima Ronaghi

"Mystery creates wonder and wonder is the basis of man's desire to understand." - Neil Armstrong

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## Education

### Georgia Institute of Technology

Chemistry and Biochemistry (Ph.D.)

2017-Present

### West Virginia University

Biochemistry (B.S.) /Chemistry (B.A.) | *Summa Cum Laude* | *Presidential Scholar*

2012-2016

## Research

Conducting research in the laboratory of Dr. Stephen J Valentine: January 2017- August 2017

- Analytical chemistry research, looking to develop methods of combined ion mobility spectrometry (IMS) and hydrogen-deuterium exchange (HDX) techniques with mass spectrometry (MS). In addition, high-resolution, multidimensional gas-phase separation techniques are also being developed.

Conducting research in the laboratory of Dr. Carsten Milsmann: January 2015-January 2016

- Inorganic and organic synthesis research, looking at ligand substitution of different imide and imine ligands with iron, cobalt, nickel, and copper. The metal complexes created are further optimized to be able to catalyze different organic reactions, such as splitting different nitrogen-carbon bonds.

Conducting research in the laboratory of Dr. Xiaodong Michael Shi: January 2014-January 2015

- Organic chemistry synthesis research, looking at the role of gold as a catalyst for organic reactions. Primarily, looking at the gold catalyzed oxidative cross-coupling of different phenyl and aliphatic alkynes.

Gaining laboratory experience in the laboratory of Dr. Amy Welsh: January 2013- June 2013

- Genetics research, looking at sturgeon in St. Lawrence River to obtain more of an understanding about the genetic diversity of the population, and thus how successful they will be as a population.

## Publications

- Peng, H., Xi, Y., **Ronaghi, N.**, Dong, B., Akhmedov, N. G., Shi, X. "Gold-Catalyzed Oxidative Cross-Coupling of Terminal Alkynes: Selective Synthesis of Unsymmetrical 1,3-Diynes" *J. Am. Chem. Soc.* **2014**, *136*, 13174-13177
- Maleki, H, Maurer, M., **Ronaghi, N.**, Valentine, S. J. "Ion mobility, hydrogen/deuterium exchange, and isotope scrambling: Tools to aid compound identification in 'omics mixtures.'" *Anal. Chem.*, **2017**, *89*, 6399-6407

## Poster Presentations

- Ronaghi, N.**, Peng, H., Shi, X. "Gold Catalyzed Oxidative Cross-Coupling of Alkynes" Presented at the Undergraduate Research Symposium at WVU, Morgantown, WV, July 2014.
- Ronaghi, N.**, Zhang, Y., Hakey, B., and Milsmann, C. "Nitrogen Group Transfer Using Low Valent Transition Metal Complexes." Presented at the Undergraduate Research Symposium at WVU, Morgantown, WV, July 2015.

## Teaching

### Teaching Assistant

- For Biochemistry 410 (Dr. Kimberly Barnes) at WVU
- For Chemistry 235 (Dr. Kung Wang) at WVU
- For Biology 115 (Dr. John Navaratnam) and Biology 219 (Dr. Dana Huebert-Lima) at WVU
- For Chemistry 2380 (Dr. Amanda Stephens) at Georgia Institute of Technology

## Awards

2016 WVU Foundation's Outstanding Senior Award (Top 1% of WVU's Graduating Class)

2015 Barry Goldwater Scholarship WVU Nominee

Presidents List: (Fall 2012, Fall 2013, Spring 2015)

Deans List: (Spring 2012, Spring 2013, Fall 2014, Fall 2015, Spring 2016)

## Work Experience

### Soccer Related

<b>Fury Soccer Club</b>	<b>2012 - 2017</b>
<b>Youth Academy Assistant Director (2014-Present)</b>	
Head coach for U11 and U14 girls teams and assistant head coach for U10, U12, and U14 boys teams	
<b>Tri-State Elite</b>	<b>2014 - 2017</b>
<b>Soccer Coach-</b> coaching the TriState Elite U13 and U10 girls teams in the Super Y Summer League	
<b>Pro Performance</b>	<b>2012-2017</b>
<b>Soccer Coach-</b> coaching private sessions, camps, and clinics for Pro Performance	
<b>Tournament manager-</b> running and organizing soccer tournaments	
<b>Complete Soccer Academy</b>	<b>2012-2017</b>
<b>Soccer Coach-</b> leading sessions at a local soccer camp	
<b>Certified USSF Referee</b>	<b>2007-2013</b>

### Coaching Certification

United States Soccer Federation National E License  
United States Soccer Federation National F License

### Academia Related

<b>Research Associate</b>	<b>2016-Present</b>
Research associate in the laboratory of Dr. Stephen Valentine, in the area of mass spectrometry	
<b>Graduate Assistant</b>	<b>Summer 2016</b>
Graduate assistant for Dr. Kimberly Barnes, assisting in New Student Orientation, acting as a teaching assistant for a summer biochemistry course, and setting up a new teaching laboratory	
<b>WVU Honors SURE</b>	<b>Summer 2014-15</b>
Two-time Summer Undergraduate Research Experience (SURE) participant	
<b>PLTL Chemistry Tutor</b>	<b>2013-2016</b>
Tutor for WVU Chemistry Department; tutoring general and organic chemistry to WVU students	

## Leadership/Volunteering/Extracurricular Activities

- American Chemical Society: 2014-Present**
- American Legion Mountaineer Boys' State Counselor: 2012-Present**
- Fury Soccer Club: 2012-Present**
  - Volunteer Coach for Fury Soccer Club, coaching kids ages 4-8
- WVU Honoraries: 2013-2016**
  - PLU Chemistry Honorary, Helvetia Sophomore Honorary, and Chimes Junior Honorary
- American Legion Mountaineer Boys' State: 2011**
  - Elected to position of Governor
- American Legion Boys' Nation: 2011**
  - Elected to position of senator; Appointed to ambassador to Spain

### Other Skills/Languages

- Fluent in Farsi (Persian)- speaking**
- Knowledgeable in Spanish- speaking and writing**