



## James Grinias

Assistant Professor  
Chemistry & Biochemistry

[grinias@rowan.edu](mailto:grinias@rowan.edu)

### Education:

BS (Chemistry), Eastern Michigan University  
PhD (Analytical Chemistry), University of North Carolina at Chapel Hill  
Post-doctoral affiliation (Analytical Chemistry), University of Michigan

### Research Expertise:

Analytical Chemistry | Liquid Chromatography | Microfluidics

My research background focuses on the fundamental development of liquid chromatography (LC) columns in capillaries and microfluidic devices. LC columns are at the heart of many analytical separation techniques across pharmaceutical, environmental, and biomedical research projects. Early work focused on the physical structure of the packed chromatographic bed inside a fused silica capillary and led to strategies that could be used to pack more efficient columns in capillaries and also miniaturized microfluidic devices. Other interests have included understanding the physical processes beyond bed structure that impact column performance (included extra-column effects and frictional heating) and applying LC and mass spectrometry (MS) instrumentation to solve analytical problems in neuroscience and molecular physiology.

### Honors and Awards:

2017 Eastern Michigan University Young Alumnus Award  
NIH NRSA Individual Postdoctoral Fellowship Award (F32- EB019800)  
HPLC 2013 Csaba Horváth Top Young Scientist Award

### Member of:

American Chemical Society ([www.acs.org](http://www.acs.org))  
California Separation Science Society ([casss.org](http://casss.org))  
Chromatography Forum of Delaware Valley ([www.cfdv.org](http://www.cfdv.org))

### Recent Publications:

Blue LE, Franklin EG, Godinho JM, Grinias JP, Grinias KM, Lunn DB, Moore SM (2017) Recent Advances in Capillary Ultrahigh Pressure Liquid Chromatography. *J Chromatogr A*. In Press.

Grinias JP, Kresge GA (2017) Miniaturizing Columns and Instruments in Liquid Chromatography. *LC-GC* 35:515-516.

Dugan CE, Grinias JP, Parlee SD, El-Azzouny M, Evans CR, Kennedy RT (2017) Monitoring Cell Secretions on Microfluidic Chips using Solid-Phase Extraction with Mass Spectrometry. *Anal Bioanal Chem*. 409:169-178.

Grinias JP, Wong J-MT, Kennedy RT (2016) Repeatability of Gradient UHPLC-MS/MS Methods in Instrument-Controlled Thermal Environments. *J Chromatogr A*. 1461:42-50.