



# e·nig·ma

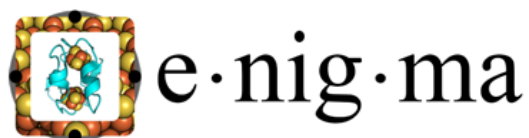
*Evolution of Nanomachines In Geospheres and Microbial Ancestors*



## **ENIGMA Astrobiology Symposium 2021**

**June 8, 2021**

<b>Time - EDT</b>	<b>Speaker</b>	<b>Title</b>
10:00am-10:15am	Paul G. Falkowski, PI ENIGMA, Rutgers University	Welcome and Introduction
10:15am-10:30am	Dror Noy, Migal Galilee Research Institute	Dan Tawfik Memorial
10:30am-11:15am	Jeremy England, Georgia Institute of Technology	Self-Organization of Lifelike Behaviors
11:15am-12:00pm	Sara Walker, Arizona State University	Planetary Systems Biochemistry: Inferring the laws of life at a Planetary Scale
12:00pm-12:15pm	Aaron Martinez, Rutgers University	Biomarkers in the Geologic Record
12:15pm-12:30pm	Break	
12:30pm-1:15pm	Gonen Ashkenasy, Ben-Gurion University of the Negev	The Systems Chemistry of Peptide Networks
1:15pm-1:30pm	Douglas Pike, Rutgers University	A Protein Structure Sequence: Decoding the Deeper Structural Evolution of Proteins Upon Which Amino Acids Vary
1:30pm-2:15pm	Betul Kacar, University of Arizona	Between a Rock and a Living Place: A Molecular Paleobiology Approach to Explore Life's Origins and Early Evolution
2:15pm-2:30pm	Saroj Poudel, Rutgers University	Expansion of Positively Charged Cavities Enabled the Evolution of Substrate Specificity in Rubisco.
2:30pm-3:00pm	Open Discussion	



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## **ENIGMA Astrobiology Symposium 2021**

**June 9, 2021**

<b>Time - EDT</b>	<b>Speaker</b>	<b>Title</b>
11:00am-11:15am	Paul G. Falkowski, PI ENIGMA, Rutgers University	Welcome and Introduction
11:15am-12:00pm	Birte Hoecker, Bayreuth University	Evolution of Proteins from Subdomain-sized Fragments
12:00pm-12:15pm	Ariel Aptekmann, Rutgers University	Mebipred: Protein Sequence Metal-binding Prediction Web Server and Standalone Tool
12:15pm-12:30pm	Break	
12:30pm-1:15pm	Dennis Dean, Virginia Tech	Aspects of Nitrogenase Catalysis and Assembly
1:15pm-1:30pm	Corday Selden, Rutgers University	Tracing N <sub>2</sub> Fixation in the (Marine) Environment
1:30pm-2:15pm	Markus Ribbe, University of California, Irvine	Reactivities of Isolated Nitrogenase Cofactors
2:15pm-2:30pm	Jennifer Timm, Rutgers University	Reconstructing a Primordial Hydrogenase
2:30pm-3:00pm	Open Discussion	