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Nikhil Krishnan

Education

2016 - Present **Case Western Reserve University School of Medicine**

Doctor Of Medicine (Spring 2020 expected completion)

2016 **Case Western Reserve University**

Bachelor of Science in Physics (GPA: 3.71/4)

- Concentration in Biophysics

- Graduated *cum laude*

- Thesis: Crystal Structures of wt SHV-1 β -Lactamases in Complex with Avibactam and Boronic Acid Transition State Analog S02030

Awards & Honors

2017	Students for a National Health Program National Summit Travel Award
2016	Physicians for a National Health Program National Meeting Student Travel Award
2013 - 2014	Hunington Fund
2017 - 2018	T S Jackson MD Sch Fund
2016 - 2017	Dr A T Carter Fund

2014 - 2016	Alumni Scholarship
2013 - 2014	Hunington Fund
2012 - 2016	University Scholarship

Bibliography

Krishnan NP, Nguyen NQ, Papp-Wallace KM, Bonomo RA, van den Akker F. Inhibition of Klebsiella β-Lactamases (SHV-1 and KPC-2) by Avibactam: A Structural Study. PLoS ONE (2015).

Nguyen NQ, **Krishnan NP**, Rojas LJ, Prati F, Caselli E, Romagnoli C, Bonomo RA, van den Akker F. Crystal structures of KPC-2 and SHV-1 β-lactamases in complex with the boronic acid transition state analog S02030. Antimicrobial Agents and Chemotherapy (2016).

Vijayaraghavan J, Kumar V, **Krishnan NP,** Kaufhold RT, Zeng X, Lin J, van den Akker F. Structural studies and molecular dynamics simulations suggest a processive mechanism of exolytic lytic transglycosylase from Campylobacter jejuni. PLoS ONE (2018).

Krishnan NP, Pelesko J, Wadhwa RR, Yoon N, Kaznatcheev A, Nichol D,Marusyk A, Hinczewski M, Scott JG. *Evolutionary game theory and fitness landscapes as frameworks for predicting and preventing drug resistance in cancer*. The 2019 Mathematical Oncology Roadmap. In press. Physical Biology (2019)

Yoon N, **Krishnan NP,** Scott JG. Modeling of collaterally sensitive drug cycles, and optimization of the drug effect in the spirit of adaptive therapy. In preparation.

Gopalakrishnan V, **Krishnan NP,** McClure E, Pelesko J, Guo D, Williamson DFK, Webster N, Ecker D, Nichol D Scott JG. A low cost, open source, self contained EVolutionary BiorEactor (EVE). bioRxiv. (2019)

Krishnan NP, Scott JG. Range expansion shift clonal interference patterns in evolving populations. bioRxiv. (2019)

Conferences

Krishnan NP, Yoon N, Nichol D, Bonomo RA, Scott JG. Inference of fitness landscapes for antibiotics based on dynamics data. ‘Poster talk’. American Society for Microbiology Microbe. New Orleans, LA. 2017.

Krishnan NP, Yoon N, Williams DFK, Bonomo RA, Scott JG. Exploring evolutionary trajectories of populations subjected to sequences of drugs *in silico* and *in vitro*. Oral Presentation. Workshop on Modeling Diversity in Cancer and Virus Evolution. Max Planck Institute of Evolutionary Biology. Plön, Germany. 2018.

Krishnan NP, McClure E, Newman J, Rutter J, Bonomo RA, Scott JG. Differing genotypic contexts between *E. coli* and *A. baumannii* modulate the role of $bla_{ADC\text{-}7}$ in the development of collateral sensitivity. Poster. IDWeek. Washington D.C.. 2019.

Other writing

Tavera G, **Krishnan NP**. Ohio's next generation of doctors and health professionals call on Sen. Portman to oppose Senate health care bill. Opinion. www.cleveland.com

Tavera G, Van Doren V, Karandinos G, **Krishnan NP** Holding Our Institutions Accountable: Lessons from the Medical Student Campaign to Divest from Trump’s Mar-a-Lago. ‘Views’. Common Dreams