

BIOGRAPHICAL SKETCH

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NAME: Shek, Roger

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Research Scientist 3

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of Hawaii, Manoa	BA	05/2013	Biology
Stony Brook University	PHD	05/2019	Biochemistry and Structural Biology

A. Personal Statement**B. Positions, Scientific Appointments, and Honors**

2021– Present Research Scientist 3, Department of Allergy and Infectious Disease, University of Washington, Seattle, WA

2019– 2021 Research Scientist Assistant, Department of Allergy and Infectious Disease, University of Washington, Seattle, WA

C. Contributions to Science**Peer-reviewed Publications (most recent)**

- [1] Choi, R., Zhou, M., Shek, R., Wilson, J. W., Tillery, L., Craig, J. K., Salukhe, I. A., Hickson, S. E., Kumar, N., James, R. M., Buchko, G. W., Wu, R., Huff, S., Nguyen, T. T., Hurst, B. L., Cherry, S., Barrett, L. K., Hyde, J. L., and Van Voorhis, W. C. (2021) High-throughput screening of the ReFRAME, Pandemic Box, and COVID Box drug repurposing libraries against SARS-CoV-2 nsp15 endoribonuclease to identify small-molecule inhibitors of viral activity, *PLoS One* 16, e0250019.
- [2] Matarlo, J. S., Evans, C. E., Sharma, I., Lavaud, L. J., Ngo, S. C., Shek, R., Rajashankar, K. R., French, J. B., Tan, D. S., and Tonge, P. J. (2015) Mechanism of MenE inhibition by acyl-adenylate analogues and discovery of novel antibacterial agents, *Biochemistry* 54, 6514-6524.
- [3] Phan, I. Q., Subramanian, S., Kim, D., Murphy, M., Pettie, D., Carter, L., Anishchenko, I., Barrett, L. K., Craig, J., Tillery, L., Shek, R., Harrington, W. E., Koelle, D. M., Wald, A., Veesler, D., King, N., Boonyaratanakornkit, J., Isoherranen, N., Greninger, A. L., Jerome, K. R., Chu, H., Staker, B., Stewart, L., Myler, P. J., and Van Voorhis, W. C. (2021) In silico detection of SARS-CoV-2 specific B-cell epitopes and validation in ELISA for serological diagnosis of COVID-19, *Sci Rep* 11, 4290.

- [4] Shek, R., Dattmore, D. A., Stives, D. P., Jackson, A. L., Chatfield, C. H., Hicks, K. A., and French, J. B. (2017) Structural and Functional Basis for Targeting *Campylobacter jejuni* Arginine Deiminase To Overcome Antibiotic Resistance, *Biochemistry* 56, 6734-6742.
- [5] Shek, R., Hilaire, T., Sim, J., and French, J. B. (2019) Structural Determinants for Substrate Selectivity in Guanine Deaminase Enzymes of the Amidohydrolase Superfamily, *Biochemistry* 58, 3280-3292.
- [6] Tillery, L. M., Barrett, K. F., Dranow, D. M., Craig, J., Shek, R., Chun, I., Barrett, L. K., Phan, I. Q., Subramanian, S., Abendroth, J., Lorimer, D. D., Edwards, T. E., and Van Voorhis, W. C. (2020) Toward a structome of *Acinetobacter baumannii* drug targets, *Protein Sci* 29, 789-802.
- [7] Yuen, C. Y., Shek, R., Kang, B. H., Matsumoto, K., Cho, E. J., and Christopher, D. A. (2016) Arabidopsis protein disulfide isomerase-8 is a type I endoplasmic reticulum transmembrane protein with thiol-disulfide oxidase activity, *BMC Plant Biol* 16, 181.