




Matthew Bogyo

Professor of Pathology and of Microbiology and Immunology and, by courtesy, of Chemical and Systems Biology

 NIH Biosketch available Online

 Curriculum Vitae available Online

Bio

ACADEMIC APPOINTMENTS

- Professor, Pathology
- Professor, Microbiology & Immunology
- Professor (By courtesy), Chemical and Systems Biology
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Faculty Fellow, Sarafan ChEM-H
- Member, Stanford Cancer Institute

HONORS AND AWARDS

- Searle Scholar, Searle Scholars Program (2004)
- Terman Fellow, Stanford University (2003)
- Investigator in Pathogenesis of Infectious Disease, Burroughs Wellcome (May 2005)

PROFESSIONAL EDUCATION

- B.S., Bates College , Chemistry (1993)
- Ph.D., MIT , Biochemistry (1997)

LINKS

- Bogyo Lab Main Site: <http://bogyolab.stanford.edu>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Our lab uses chemical, biochemical, and cell biological methods to study protease function in human disease. Projects include:

- 1) Design and synthesis of novel chemical probes for serine and cysteine hydrolases.
- 2) Understanding the role of hydrolases in bacterial pathogenesis and the human parasites, *Plasmodium falciparum* and *Toxoplasma gondii*.
- 3) Defining the specific functional roles of proteases during the process of tumorigenesis.

4) In vivo imaging of protease activity

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Kristyna Blazkova, Shiyu Chen, Jeyun Jo, Nichole Pedowitz, Tulsi Upadhyay, Sijie Wang, Emily Woods, Jiyun Zhu

Doctoral Dissertation Advisor (AC)

John Bennett, Franco Faucher

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cancer Biology (Phd Program)
- Chemical and Systems Biology (Phd Program)
- Microbiology and Immunology (Phd Program)

Publications

PUBLICATIONS

- **Mixed Alkyl/Aryl Phosphonates Identify Metabolic Serine Hydrolases as Antimalarial Targets.** *bioRxiv : the preprint server for biology*
Bennett, J. M., Narwal, S. K., Kabeche, S., Abegg, D., Hackett, F., Yeo, T., Li, V. L., Muir, R. K., Faucher, F. F., Lovell, S., Blackman, M. J., Adibekian, A., Yeh, et al
2024
- **Development of Oxadiazolone Activity-Based Probes Targeting FpHE for Specific Detection of S. aureus Infections.** *bioRxiv : the preprint server for biology*
Jo, J., Upadhyay, T., Woods, E. C., Park, K. W., Pedowitz, N. J., Jaworek-Korjakowska, J., Wang, S., Valdez, T. A., Fellner, M., Bogyo, M.
2023
- **Covalent Macrocyclic Proteasome Inhibitors Mitigate Resistance in Plasmodium falciparum.** *ACS infectious diseases*
Bennett, J. M., Ward, K. E., Muir, R. K., Kabeche, S., Yoo, E., Yeo, T., Lam, G., Zhang, H., Almaliti, J., Berger, G., Faucher, F. F., Lin, G., Gerwick, et al
2023
- **Chemoproteomic identification of a DPP4 homolog in Bacteroides thetaiotaomicron.** *Nature chemical biology*
Keller, L. J., Nguyen, T. H., Liu, L. J., Hurysz, B. M., Lakemeyer, M., Guerra, M., Gelsinger, D. J., Chanin, R., Ngo, N., Lum, K. M., Faucher, F., Ipock, P., Niphakis, et al
2023
- **Protease Activated Probes for Real-Time Ratiometric Imaging of Solid Tumors** *ACS CENTRAL SCIENCE*
Faucher, F. F., Liu, K. J., Cosco, E. D., Widen, J. C., Sorger, J., Guerra, M., Bogyo, M.
2023: 1059-1069
- **Mitigating the risk of antimalarial resistance via covalent dual-subunit inhibition of the Plasmodium proteasome.** *Cell chemical biology*
Deni, I., Stokes, B. H., Ward, K. E., Fairhurst, K. J., Pasaje, C. F., Yeo, T., Akbar, S., Park, H., Muir, R., Bick, D. S., Zhan, W., Zhang, H., Liu, et al
2023
- **Solid Phase Synthesis of Fluorosulfate Containing Macrocycles for Chemoproteomic Workflows.** *bioRxiv : the preprint server for biology*
Faucher, F. F., Abegg, D., Ipock, P., Adibekian, A., Lovell, S., Bogyo, M.
2023
- **Solid Phase Synthesis of Fluorosulfate Containing Macrocycles for Chemoproteomic Workflows** *Israel Journal of Chemistry*
Faucher, F., Abegg, D., Ipock, P., Adibekian, A., Lovell, S., Bogyo, M.
2023
- **Finding optimal drug target sites in parasite pathogens.** *Trends in parasitology*

Bogyo, M.
2022

- **Trypanosoma brucei Acyl-Protein Thioesterase-like (TbAPT-L) Is a Lipase with Esterase Activity for Short and Medium-Chain Fatty Acids but Has No Depalmitoylation Activity.** *Pathogens (Basel, Switzerland)*
Brown, R. W., Sharma, A. I., Villanueva, M. R., Li, X., Onguka, O., Zilbermintz, L., Nguyen, H., Falk, B. A., Olson, C. L., Taylor, J. M., Epting, C. L., Kathayat, R. S., Amara, et al
2022; 11 (11)
- **The human disease gene LYSET is essential for lysosomal enzyme transport and viral infection.** *Science (New York, N.Y.)*
Richards, C. M., Jabs, S., Qiao, W., Varanese, L. D., Schweizer, M., Mosen, P. R., Riley, N. M., Klüssendorf, M., Zengel, J. R., Flynn, R. A., Rustagi, A., Widen, J. C., Peters, et al
2022: eabn5648
- **Formulation of a Thermosensitive Imaging Hydrogel for Topical Application and Rapid Visualization of Tumor Margins in the Surgical Cavity.** *Cancers*
Walker, E., Linders, D. G., Abenojar, E., Wang, X., Hazelbag, H. M., Straver, M. E., Bijlstra, O. D., March, T. L., Vahrmeijer, A. L., Exner, A., Bogyo, M., Basilion, J. P., Straight, et al
2022; 14 (14)
- **A cathepsin targeted quenched activity-based probe facilitates enhanced detection of human tumors during resection.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Kennedy, G. T., Holt, D. E., Azari, F. S., Bernstein, E., Nadeem, B., Chang, A., Sullivan, N. T., Segil, A., Deshpande, C., Bensen, E., Santini, J. T., Kucharczuk, J. C., Delikatny, et al
2022
- **Uncovering an overlooked consequence of phosphorylation: change in cysteine reactivity.** *Nature methods*
Lakemeyer, M., Bogyo, M.
2022
- **Activity-Based Diagnostics: Recent Advances in the Development of Probes for Use with Diverse Detection Modalities.** *ACS chemical biology*
Muir, R. K., Guerra, M., Bogyo, M. M.
1800
- **Integration of bioinformatic and chemoproteomic tools for the study of enzyme conservation in closely related bacterial species.** *Methods in enzymology*
Keller, L. J., Lakemeyer, M., Bogyo, M.
2022; 664: 1-22
- **A 'Swiss army knife' probe for metastatic cancers.** *Nature materials*
Bogyo, M.
2021; 20 (10): 1312-1314
- **Chemiluminescent Protease Probe for Rapid, Sensitive, and Inexpensive Detection of Live Mycobacterium tuberculosis.** *ACS central science*
Babin, B. M., Fernandez-Cuervo, G., Sheng, J., Green, O., Ordonez, A. A., Turner, M. L., Keller, L. J., Jain, S. K., Shabat, D., Bogyo, M.
2021; 7 (5): 803-814
- **Blocking Palmitoylation of Toxoplasma gondii Myosin Light Chain 1 Disrupts Glideosome Composition but Has Little Impact on Parasite Motility.** *mSphere*
Rompikuntal, P. K., Kent, R. S., Foe, I. T., Deng, B., Bogyo, M., Ward, G. E.
2021; 6 (3)
- **Challenges for Targeting SARS-CoV-2 Proteases as a Therapeutic Strategy for COVID-19.** *ACS infectious diseases*
Stuten, K., Kim, H., Widen, J. C., Babin, B. M., Onguka, O., Lovell, S., Bolgi, O., Cerikan, B., Neufeldt, C. J., Cortese, M., Muir, R. K., Bennett, J. M., Geiss-Friedlander, et al
2021
- **A protease-activated, near-infrared fluorescent probe for early endoscopic detection of premalignant gastrointestinal lesions.** *Proceedings of the National Academy of Sciences of the United States of America*
Yim, J. J., Harmsen, S., Flisikowski, K., Flisikowska, T., Namkoong, H., Garland, M., van den Berg, N. S., Vilches-Moure, J. G., Schnieke, A., Saur, D., Glasl, S., Gorpas, D., Habtezion, et al
2021; 118 (1)

- **The Thyroid Hormone Transporter Mct8 Restricts Cathepsin-Mediated Thyroglobulin Processing in Male Mice through Thyroid Auto-Regulatory Mechanisms That Encompass Autophagy.** *International journal of molecular sciences*
Venugopalan, V. n., Al-Hashimi, A. n., Rehders, M. n., Golchert, J. n., Reinecke, V. n., Homuth, G. n., Völker, U. n., Manirajah, M. n., Touzani, A. n., Weber, J. n., Bogyo, M. S., Verrey, F. n., Wirth, et al
2021; 22 (1)
- **Identification of covalent inhibitors that disrupt M. tuberculosis growth by targeting multiple serine hydrolases involved in lipid metabolism.** *Cell chemical biology*
Babin, B. M., Keller, L. J., Pinto, Y., Li, V. L., Eneim, A. S., Vance, S. E., Terrell, S. M., Bhatt, A. S., Long, J. Z., Bogyo, M.
2021
- **Toxoplasma gondii serine hydrolases regulate parasite lipid mobilization during growth and replication within the host.** *Cell chemical biology*
Onguka, O., Babin, B. M., Lakemeyer, M., Foe, I. T., Amara, N., Terrell, S. M., Lum, K. M., Cieplak, P., Niphakis, M. J., Long, J. Z., Bogyo, M.
2021
- **Selective activation of PFKL suppresses the phagocytic oxidative burst.** *Cell*
Amara, N., Cooper, M. P., Voronkova, M. A., Webb, B. A., Lynch, E. M., Kollman, J. M., Ma, T., Yu, K., Lai, Z., Sangaraju, D., Kayagaki, N., Newton, K., Bogyo, et al
2021
- **Procathepsin V Is Secreted in a TSH Regulated Manner from Human Thyroid Epithelial Cells and Is Accessible to an Activity-Based Probe.** *International journal of molecular sciences*
Al-Hashimi, A., Venugopalan, V., Rehders, M., Sereesongsaeng, N., Hein, Z., Springer, S., Weber, E., Fuhrer, D., Bogyo, M. S., Scott, C. J., Burden, R. E., Brix, K.
2020; 21 (23)
- **Pre-Trained Deep Convolutional Neural Network for Clostridioides Difficile Bacteria Cytotoxicity Classification Based on Fluorescence Images.** *Sensors (Basel, Switzerland)*
Brodzicki, A., Jaworek-Korjakowska, J., Kleczek, P., Garland, M., Bogyo, M.
2020; 20 (23)
- **Identification of highly selective covalent inhibitors by phage display.** *Nature biotechnology*
Chen, S., Lovell, S., Lee, S., Fellner, M., Mace, P. D., Bogyo, M.
2020
- **Short-Wave Infrared Fluorescence Chemical Sensor for Detection of Otitis Media.** *ACS sensors*
Yim, J. J., Singh, S. P., Xia, A., Kashfi-Sadabad, R., Tholen, M., Huland, D. M., Zarabanda, D., Cao, Z., Solis-Pazmino, P., Bogyo, M., Valdez, T. A.
2020
- **Fluorescent image-guided surgery in breast cancer by intravenous application of a quenched fluorescence activity-based probe for cysteine cathepsins in a syngeneic mouse model.** *EJNMMI research*
Suurs, F. V., Qiu, S., Yim, J. J., Schroder, C. P., Timmer-Bosscha, H., Bensen, E. S., Santini, J. T., de Vries, E. G., Bogyo, M., van Dam, G. M.
2020; 10 (1): 111
- **The glucosyltransferase activity of C. difficile Toxin B is required for disease pathogenesis.** *PLoS pathogens*
Bilverstone, T. W., Garland, M., Cave, R. J., Kelly, M. L., Tholen, M., Bouley, D. M., Kaye, P., Minton, N. P., Bogyo, M., Kuehne, S. A., Melnyk, R. A.
2020; 16 (9): e1008852
- **Structural Basis for the Inhibitor and Substrate Specificity of the Unique Fph Serine Hydrolases of Staphylococcus aureus.** *ACS infectious diseases*
Fellner, M., Lentz, C. S., Jamieson, S. A., Brewster, J. L., Chen, L., Bogyo, M., Mace, P. D.
2020
- **Strategies for Tuning the Selectivity of Chemical Probes that Target Serine Hydrolases.** *Cell chemical biology*
Faucher, F., Bennett, J. M., Bogyo, M., Lovell, S.
2020
- **The Clinical Drug Ebselen Attenuates Inflammation and Promotes Microbiome Recovery in Mice after Antibiotic Treatment for CDI.** *Cell reports medicine*
Garland, M., Hryckowian, A. J., Tholen, M., Bender, K. O., Van Treuren, W. W., Loscher, S., Sonnenburg, J. L., Bogyo, M.
2020; 1 (1)

- **A Protease-Activated Fluorescent Probe Allows Rapid Visualization of Keratinocyte Carcinoma During Excision.** *Cancer research*
Walker, E., Liu, Y., Kim, I., Biro, M., Iyer, S. R., Ezaldeen, H., Scott, J., Merati, M., Mistur, R., Zhou, B., Straight, B., Yim, J. J., Bogyo, et al
2020
- **The Antimalarial Natural Product Salinipostin A Identifies Essential Serine Hydrolases Involved in Lipid Metabolism in *P. falciparum* Parasites.** *Cell chemical biology*
Yoo, E. n., Schulze, C. J., Stokes, B. H., Onguka, O. n., Yeo, T. n., Mok, S. n., Gnädig, N. F., Zhou, Y. n., Kurita, K. n., Foe, I. T., Terrell, S. M., Boucher, M. J., Cieplak, et al
2020
- **Characterization of Serine Hydrolases Across Clinical Isolates of Commensal Skin Bacteria *Staphylococcus epidermidis* Using Activity-Based Protein Profiling.** *ACS infectious diseases*
Keller, L. J., Lentz, C. S., Chen, Y. E., Metivier, R. J., Weerapana, E. n., Fischbach, M. A., Bogyo, M. n.
2020
- **Discovery of small molecules that normalize the transcriptome and enhance cysteine cathepsin activity in progranulin-deficient microglia.** *Scientific reports*
Telpoukhovskaia, M. A., Liu, K. n., Sayed, F. A., Etcheagaray, J. I., Xie, M. n., Zhan, L. n., Li, Y. n., Zhou, Y. n., Le, D. n., Bahr, B. A., Bogyo, M. n., Ding, S. n., Gan, et al
2020; 10 (1): 13688
- **Methods for analysis of near-infrared (NIR) quenched-fluorescent contrast agents in mouse models of cancer.** *Methods in enzymology*
Widen, J. C., Tholen, M., Yim, J. J., Bogyo, M.
2020; 639: 141–66
- **AND-gate contrast agents for enhanced fluorescence-guided surgery.** *Nature biomedical engineering*
Widen, J. C., Tholen, M. n., Yim, J. J., Antaris, A. n., Casey, K. M., Rogalla, S. n., Klaassen, A. n., Sorger, J. n., Bogyo, M. n.
2020
- **Design of optical imaging probes by screening of diverse substrate libraries directly in disease tissue extracts.** *Angewandte Chemie (International ed. in English)*
Tholen, M. n., Yim, J. J., Groborz, K. n., Yoo, E. n., Martin, B. A., van den Berg, N. S., Drag, M. n., Bogyo, M. n.
2020
- **Activity-based protein profiling in bacteria: Applications for identification of therapeutic targets and characterization of microbial communities.** *Current opinion in chemical biology*
Keller, L. J., Babin, B. M., Lakemeyer, M., Bogyo, M.
2019; 54: 45–53
- **Leveraging Peptide Substrate Libraries to Design Inhibitors of Bacterial Lon Protease** *ACS CHEMICAL BIOLOGY*
Babin, B. M., Kasperkiewicz, P., Janiszewski, T., Yoo, E., Drag, M., Bogyo, M.
2019; 14 (11): 2453–62
- **Synthetic and biological approaches to map substrate specificities of proteases.** *Biological chemistry*
Chen, S., Yim, J. J., Bogyo, M.
2019
- **Treatment of rat thyrocytes in vitro with cathepsin B and L inhibitors results in disruption of primary cilia leading to redistribution of the trace amine associated receptor 1 to the endoplasmic reticulum.** *Biochimie*
Szumska, J., Batool, Z., Al-Hashimi, A., Venugopalan, V., Skripnik, V., Schaschke, N., Bogyo, M., Brix, K.
2019
- **Proteolytic processing and activation of gingipain zymogens secreted by T9SS of *Porphyromonas gingivalis*.** *Biochimie*
Veillard, F., Sztukowska, M., Nowakowska, Z., Mizgalska, D., Thogersen, I. B., Enghild, J. J., Bogyo, M., Potempa, B., Nguyen, K., Potempa, J.
2019
- **Characterization of *P. falciparum* dipeptidyl aminopeptidase 3 specificity identifies differences in amino acid preferences between peptide-based substrates and covalent inhibitors.** *The FEBS journal*
de Vries, L. E., Sanchez, M. I., Groborz, K., Kuppens, L., Poreba, M., Lehmann, C., Nevins, N., Withers-Martinez, C., Hirst, D. J., Yuan, F., Arastu-Kapur, S., Horn, M., Mares, et al
2019

- **Synthetic Fluorogenic Peptides Reveal Dynamic Substrate Specificity of Depalmitoylases** *CELL CHEMICAL BIOLOGY*
Amara, N., Foe, I. T., Onguka, O., Garland, M., Bogyo, M.
2019; 26 (1): 35–+
- **Identification of Plasmodiumdipeptidyl aminopeptidase allosteric inhibitors by high throughput screening.** *PloS one*
Sanchez, M. I., de Vries, L. E., Lehmann, C., Lee, J. T., Ang, K. K., Wilson, C., Chen, S., Arkin, M. R., Bogyo, M., Deu, E.
2019; 14 (12): e0226270
- **Catalytic linkage between caspase activity and proteostasis in Archaea** *ENVIRONMENTAL MICROBIOLOGY*
Seth-Pasricha, M., Senn, S., Sanman, L. E., Bogyo, M., Nanda, V., Bidle, K. A., Bidle, K. D.
2019; 21 (1): 286-298
- **Molecular imaging and validation of margins in surgically excised nonmelanoma skin cancer specimens.** *Journal of medical imaging (Bellingham, Wash.)*
Liu, Y., Walker, E., Iyer, S. R., Biro, M., Kim, I., Zhou, B., Straight, B., Bogyo, M., Basilion, J. P., Popkin, D. L., Wilson, D. L.
2019; 6 (1): 016001
- **Molecular imaging and validation of margins in surgically excised nonmelanoma skin cancer specimens** *JOURNAL OF MEDICAL IMAGING*
Liu, Y., Walker, E., Iyer, S., Biro, M., Kim, I., Zhou, B., Straight, B., Bogyo, M., Basilion, J. P., Popkin, D. L., Wilson, D. L.
2019; 6 (1)
- **Fluorescent Triazole Urea Activity-Based Probes for the Single-Cell Phenotypic Characterization of Staphylococcus aureus.** *Angewandte Chemie (International ed. in English)*
Chen, L. n., Keller, L. J., Cordasco, E. n., Bogyo, M. n., Lentz, C. S.
2019; 58 (17): 5643–47
- **Covalent Plasmodium falciparum-selective proteasome inhibitors exhibit a low propensity for generating resistance in vitro and synergize with multiple antimalarial agents.** *PLoS pathogens*
Stokes, B. H., Yoo, E. n., Murithi, J. M., Luth, M. R., Afanasyev, P. n., da Fonseca, P. C., Winzeler, E. A., Ng, C. L., Bogyo, M. n., Fidock, D. A.
2019; 15 (6): e1007722
- **Covalent Modifiers of Botulinum Neurotoxin Counteract Toxin Persistence** *ACS CHEMICAL BIOLOGY*
Garland, M., Babin, B. M., Miyashita, S., Loscher, S., Shen, Y., Dong, M., Bogyo, M.
2019; 14 (1): 76–87
- **Validation of near infrared fluorescence (NIRF) probes in vivo with dual laser NIRF endoscope** *PLOS ONE*
Shrivastav, M., Gounaris, E., Khan, M. W., Ko, J., Ryu, S. H., Bogyo, M., Larson, A., Barret, T. A., Bentrem, D. J.
2018; 13 (11)
- **Catalytic linkage between caspase activity and proteostasis in Archaea.** *Environmental microbiology*
Seth-Pasricha, M., Senn, S., Sanman, L. E., Bogyo, M., Nanda, V., Bidle, K. A., Bidle, K. D.
2018
- **Synthetic Fluorogenic Peptides Reveal Dynamic Substrate Specificity of Depalmitoylases.** *Cell chemical biology*
Amara, N., Foe, I. T., Onguka, O., Garland, M., Bogyo, M.
2018
- **Erratum for Foe et al., "The Toxoplasma gondii Active Serine Hydrolase 4 Regulates Parasite Division and Intravacuolar Parasite Architecture".** *mSphere*
Foe, I. T., Onguka, O., Amberg-Johnson, K., Garner, R. M., Amara, N., Beatty, W., Yeh, E., Bogyo, M.
2018; 3 (5)
- **The Toxoplasma gondii Active Serine Hydrolase 4 Regulates Parasite Division and Intravacuolar Parasite Architecture.** *mSphere*
Foe, I. T., Onguka, O., Amberg-Johnson, K., Garner, R. M., Amara, N., Beatty, W., Yeh, E., Bogyo, M.
2018; 3 (5)
- **Defining the Determinants of Specificity of Plasmodium Proteasome Inhibitors** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Yoo, E., Stokes, B. H., de Jong, H., Vanaerscho, M., Kumar, T. S., Lawrence, N., Njoroge, M., Garcia, A., Van der Westhuyzen, R., Momper, J. D., Ng, C. L., Fidock, D. A., Bogyo, et al
2018; 140 (36): 11424–37

- **The Toxoplasma gondii Active Serine Hydrolase 4 Regulates Parasite Division and Intravacuolar Parasite Architecture** *MSPHERE*
Foe, I. T., Onguka, O., Amberg-Johnson, K., Garner, R. M., Amara, N., Beatty, W., Yeh, E., Bogyo, M.
2018; 3 (5)
- **The Toxoplasma gondii Active Serine Hydrolase 4 Regulates Parasite Division and Intravacuolar Parasite Architecture (vol 3, e00393-18, 2018)** *MSPHERE*
Foe, I. T., Onguka, O., Amberg-Johnson, K., Garner, R. M., Amara, N., Beatty, W., Yeh, E., Bogyo, M.
2018; 3 (5)
- **The Toxoplasma gondii Active Serine Hydrolase 4 Regulates Parasite Division and Intravacuolar Parasite Architecture (vol 3, e00393-18, 2018)** *MSPHERE*
Foe, I. T., Onguka, O., Amberg-Johnson, K., Garner, R. M., Amara, N., Beatty, W., Yeh, E., Bogyo, M.
2018; 3 (5)
- **An Automatic Analysis System for High-Throughput Clostridium Difficile Toxin Activity Screening** *APPLIED SCIENCES-BASEL*
Garland, M., Jaworek-Korjakowska, J., Libal, U., Bogyo, M., Sienczyk, M.
2018; 8 (9)
- **Chemical Tools for Selective Activity Profiling of Endogenously Expressed MMP-14 in Multicellular Models** *ACS CHEMICAL BIOLOGY*
Amara, N., Tholen, M., Bogyo, M.
2018; 13 (9): 2645–54
- **PD-1 Inhibitory Receptor Downregulates Asparaginyl Endopeptidase and Maintains Foxp3 Transcription Factor Stability in Induced Regulatory T Cells** *IMMUNITY*
Stathopoulou, C., Gangaplara, A., Mallett, G., Flomerfelt, F. A., Liniany, L. P., Knight, D., Samsel, L. A., Berlinguer-Palmini, R., Yim, J. J., Felizardo, T. C., Eckhaus, M. A., Edgington-Mitchell, L., Martinez-Fabregas, et al
2018; 49 (2): 247–+
- **Identifying compounds that restore normal cellular function in Frontotemporal dementia caused by progranulin haploinsufficiency**
Telpoukhovskaia, M., Liu, K., Sayed, F., Etchegaray, J., Zhou, Y., Le, D., Xie, M., Bogyo, M., Ding, S., Gan, L.
AMER CHEMICAL SOC.2018
- **Identification of a S. aureus virulence factor by activity-based protein profiling (ABPP)** *NATURE CHEMICAL BIOLOGY*
Lentz, C. S., Sheldon, J. R., Crawford, L. A., Cooper, R., Garland, M., Amieva, M. R., Weerapana, E., Skaar, E. P., Bogyo, M.
2018; 14 (6): 609–+
- **Identification of a S. aureus virulence factor by activity-based protein profiling (ABPP).** *Nature chemical biology*
Lentz, C. S., Sheldon, J. R., Crawford, L. A., Cooper, R., Garland, M., Amieva, M. R., Weerapana, E., Skaar, E. P., Bogyo, M.
2018
- **Multiplexed in vivo small molecule screening for immediate drug repositioning reveals novel therapeutic targets in metastatic pancreatic cancer.**
Dorsch, M., Schulze, C., Yang, D., Bogyo, M., Winslow, M., Gruener, B.
AMER ASSOC CANCER RESEARCH.2018: 34–35
- **Reactive-site-centric chemoproteomics identifies a distinct class of deubiquitinase enzymes** *NATURE COMMUNICATIONS*
Hewings, D. S., Heideker, J., Ma, T. P., AhYoung, A. P., El Oualid, F., Amore, A., Costakes, G. T., Kirchofer, D., Brasher, B., Pillow, T., Popovych, N., Maurer, T., Schwerdtfeger, et al
2018; 9: 1162
- **TGF-beta Regulates Cathepsin Activation during Normal and Pathogenic Development** *CELL REPORTS*
Flanagan-Steet, H., Christian, C., Lu, P., Aarnio-Peterson, M., Sanman, L., Archer-Hartmann, S., Azadi, P., Bogyo, M., Steet, R. A.
2018; 22 (11): 2964–77
- **Development of an activity-based probe for acyl-protein thioesterases** *PLOS ONE*
Garland, M., Schulze, C. J., Foe, I. T., van der Linden, W. A., Child, M. A., Bogyo, M.
2018; 13 (1): e0190255
- **Optimization of a Protease Activated Probe for Optical Surgical Navigation.** *Molecular pharmaceutics*
Yim, J. J., Tholen, M. n., Klaassen, A. n., Sorger, J. n., Bogyo, M. n.
2018; 15 (3): 750–58
- **Validation of near infrared fluorescence (NIRF) probes in vivo with dual laser NIRF endoscope.** *PloS one*

- Shrivastav, M., Gounaris, E., Khan, M. W., Ko, J., Ryu, S. H., Bogyo, M., Larson, A., Barret, T. A., Bentrem, D. J.
2018; 13 (11): e0206568
- **PROTEASOME INHIBITOR-BASED COMBINATION THERAPY POTENTLY INHIBITS ARTEMISININ-RESISTANT *PLASMODIUM FALCIPARUM***
Stokes, B., Yoo, E., Muriungi, J., Otilie, S., Luth, M., Winzeler, E., Bogyo, M., Fidock, D., Ng, C.
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