Stanford



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 and Immunology
- Professor (By courtesy), Chemical and Systems Biology
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Medicine Children's Health Center for IBD and Celiac Disease
- Faculty Fellow, Sarafan ChEM-H
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences 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 tumorogenesis.

4) In vivo imaging of protease activity

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Lynna Baryakova, Ifeanyichukwu Eke, Philipp Schilling, Emily Woods

Doctoral Dissertation Advisor (AC)

Alyssa Carter, Laney Flanagan, Andrew Levy, Hai Phan

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

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

Publications

PUBLICATIONS

- **A Two-Step Synthesis of Covalent Genetically Encoded Libraries of Peptide-Derived Macrocycles Enables the Use of Electrophiles with Diverse Reactivity.** *Journal of the American Chemical Society*
  Walker, J. H., Ekanayake, A. I., Pedowitz, N., Qiu, R., Girnt, P., Babin, B. M., Atrazhev, A., Long, R., Vukovic, L., Julien, O., Bogyo, M., Derda, R.
  2026; 148 (39): 42265-42275

- **A Two-Step Synthesis of Covalent Genetically Encoded Libraries of Peptide-Derived Macrocycles Enables the Use of Electrophiles with Diverse Reactivity** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
  Walker, J. H., Ekanayake, A. I., Pedowitz, N., Qiu, R., Girnt, P., Babin, B. M., Atrazhev, A., Long, R., Vukovic, L., Julien, O., Bogyo, M., Derda, R.
  2026

- **Trypanosoma evansi: Molecular Characterization and Validation of a Cathepsin-L-like Peptidase as a Potential Therapeutic Target.** *Pathogens (Basel, Switzerland)*
  Bremo, A., Perez, Y. G., Turcios, L. M., Caffrey, C. R., Bogyo, M., McKerrow, J. H., Gonzatti, M.
  2026; 15 (9)

- **Protease-induced activation of colonic afferent neurons by a gut bacterium associated with inflammatory bowel disease**
  Wood, H. M., Nakhle, R., Blazkova, K., Faucher, F. F., Farquhar, M., Sheth, P. M., Schmidt, B. L., Vanner, S. J., Bunnett, N. W., Bogyo, M., Reed, D. E., Lomax, A. E.
  AMER PHYSIOLOGICAL SOC.2026

- **Imaging of Staphylococcus aureus Infections and Biofilms Using a Selective Covalent Probe for the Unique Serine Hydrolase FphE.** *Angewandte Chemie (International ed. in English)*
  Woods, E. C., Upadhyay, T., Park, K. W., Su, S. P., Xiao, Z., Rao, J., Valdez, T. A., Jo, J., Bogyo, M.
  2026: e9575966

- **A broad cathepsin inhibitor blocks crystal-stimulated inflammasome-dependent and -independent inflammation and gout arthritis.** *Communications medicine*
  Orellano, L. A., Zeng, C., Zhu, J., Bogyo, M., Rock, K. L., Lai, J. J.
  2026

- **An Optimized Route to the Syringolin Natural Products Enables Combinatorial Synthesis of Selective, Bioactive Inhibitors of the Plasmodium falciparum 20S Proteasome.** *Journal of medicinal chemistry*

Gu, X., Fajtova, P., Yan, N. L., Saxena, A., Fei, F., Zhu, J., Tse, E., Melo, A., Yoo, E., Buchwald, N. H., Southworth, D. R., Bogyo, M., Derisi, et al
2026

- **Unique structural and ligand-binding properties of the Staphylococcus aureus serine hydrolase FphE.** *Proceedings of the National Academy of Sciences of the United States of America*
  Jo, J., Upadhyay, T., You, X., Bennett, J. M., Lee, H., Bogyo, M., Fellner, M.
  2026; 123 (13): e2532683123
- **Imaging of Staphylococcus aureus infections and biofilms using a selective covalent probe for the unique serine hydrolase FphE.** *bioRxiv : the preprint server for biology*
  Woods, E. C., Upadhyay, T., Park, K. W., Su, S. P., Xiao, Z., Rao, J., Valdez, T. A., Jo, J., Bogyo, M.
  2026
- **Mycobacteriophage Functionalized Magnetic Nanocrystal Clusters for Highly Sensitive and Rapid Detection of Mycobacterium tuberculosis.** *JACS Au*
  Xiao, Z., Yen, C., Wang, T., Ibrahim, J., Fu, Q., Dai, S. Y., Hajfathalian, M., Murugesan, K., Banaei, N., Bogyo, M., Rao, J.
  2025; 5 (12): 6100-6111
- **Mycobacteriophage Functionalized Magnetic Nanocrystal Clusters for Highly Sensitive and Rapid Detection of Mycobacterium tuberculosis** *JACS AU*
  Xiao, Z., Yen, C., Wang, T., Ibrahim, J., Fu, Q., Dai, S., Hajfathalian, M., Murugesan, K., Banaei, N., Bogyo, M., Rao, J.
  2025
- **Chemiluminescent probes for imaging cysteine cathepsin activity.** *Bioorganic & medicinal chemistry letters*
  Zhu, J., Gutkin, S., Chen, S., Su, S. P., Phan, H., Shabat, D., Bogyo, M.
  2025: 130480
- **A pipeline for proteome-wide analysis of electrophile selectivity.** *Nature chemistry*
  Jo, J., Bogyo, M.
  2025
- **Nanomedicines targeting protease-activated receptor 2 in endosomes provide sustained analgesia.** *Proceedings of the National Academy of Sciences of the United States of America*
  Teng, S. L., Latorre, R., Bhansali, D., Lewis, P. K., Pollard, R. E., Peach, C. J., Sokrat, B., Thanigai Arasu, G. S., Chiu, T., Duran, P., Jimenez-Vargas, N. N., Mocherniak, A., Bogyo, et al
  2025; 122 (41): e2412687122
- **Unique structural and ligand binding properties of the Staphylococcus aureus serine hydrolase FphE.** *bioRxiv : the preprint server for biology*
  Jo, J., Upadhyay, T., You, X., Bennett, J. M., Lee, H., Bogyo, M., Fellner, M.
  2025
- **A Caspase-1-cathepsin AND-Gate Probe for Selective Imaging of Inflammasome Activation.** *ACS chemical biology*
  Chen, S., Goncin, U., Zhu, J., Su, S. P., Czyzyk, T. A., Miller, C. O., Sadabad, R. K., Bogyo, M.
  2025
- **A Bacteroides fragilis protease activates host PAR2 to induce intestinal pain and inflammation.** *Cell host & microbe*
  Lakemeyer, M., Latorre, R., Blazkova, K., Wood, H. M., Jensen, D. D., Shakil, N., Thomas, S. C., Saxena, D., Mulpuri, Y., Poolman, D., Duran, P., Keller, L. J., Reed, et al
  2025
- **A Two-Step Synthesis of Covalent Genetically-Encoded Libraries of Peptide-Derived Macrocycles (cGELs) enables use of electrophiles with diverse reactivity.** *bioRxiv : the preprint server for biology*
  Walker, J. H., Ekanayake, A. I., Pedowitz, N., Qiu, R., Girnt, P., Babin, B. M., Atrazhev, A., Vukovic, L., Bogyo, M. M., Derda, R.
  2025
- **Recombinant proteasome provides new avenues for anti-malarial drug development.** *bioRxiv : the preprint server for biology*
  Fajtova, P., Zhang, H., Urich, L., da Silva, E. B., da Silva, C. H., Almaliti, J., Al-Hindy, M., Boura, E., Fidock, D. A., Kirkman, L. A., Lin, G., Bogyo, M., Gerwick, et al
  2025
- **Macrocyclic Phage Display for Identification of Selective Protease Substrates.** *Journal of the American Chemical Society*

Faucher, F. F., Blazkova, K., Lovell, S., Bertolini, M., Herrero-Bourdieu, J., Cosco, E. D., Bogyo, M., Barniol-Xicota, M.
2025

- **PFPRELI: A NOVEL MOLECULAR MEDIATOR OF RESISTANCE TO PLASMODIUM FALCIPARUM SERINE HYDROLASE INHIBITORS**
  Narwal, S. K., Bennett, J. M., Kumpornsin, K., Okombo, J., Yeo, T., Mcnamara, C., Bogyo, M., Fidock, D. A.
  AMER SOC TROP MED & HYGIENE.2025

- **Identification of covalent inhibitors of Staphylococcus aureus serine hydrolases important for virulence and biofilm formation.** *Nature communications*
  Upadhyay, T., Woods, E. C., Dela Ahator, S., Julin, K., Faucher, F. F., Uddin, M. J., Hollander, M. J., Pedowitz, N. J., Abegg, D., Hammond, I., Eke, I. E., Wang, S., Chen, et al
  2025; 16 (1): 5046

- **A caspase-1-cathepsin AND-gate probe for selective imaging of inflammasome activation.** *bioRxiv : the preprint server for biology*
  Chen, S., Goncin, U., Zhu, J., Su, S. P., Czyzyk, T. A., Miller, C. O., Sadabad, R. K., Bogyo, M.
  2025

- **Chemical strategies for targeting lipid pathways in bacterial pathogens.** *Current opinion in chemical biology*
  Carter, A. M., Woods, E. C., Bogyo, M.
  2025; 86: 102596

- **Macrocyclic phage display for identification of selective protease substrates.** *bioRxiv : the preprint server for biology*
  Faucher, F. F., Lovell, S., Bertolini, M., Blažková, K., Cosco, E. D., Bogyo, M., Barniol-Xicota, M.
  2025

- **A robust fluorogenic substrate for chikungunya virus protease (nsP2) activity.** *Protein science : a publication of the Protein Society*
  Makhaik, S., Rut, W., Choudhary, S., Upadhyay, T., Hao, C., Westberg, M., Bobst, C., Yoo, E., Fejzo, J., Lin, M. Z., Bogyo, M., Thompson, P., Drag, et al
  2025; 34 (3): e70069

- **An mRNA Display Approach for Covalent Targeting of a Staphylococcus aureus Virulence Factor.** *Journal of the American Chemical Society*
  Wang, S., Woods, E. C., Jo, J., Zhu, J., Hansel-Harris, A., Holcomb, M., Llanos, M., Pedowitz, N. J., Upadhyay, T., Bennett, J., Fellner, M., Park, K. W., Zhang, et al
  2025

- **Identification of Covalent Cyclic Peptide Inhibitors Targeting Protein-Protein Interactions Using Phage Display.** *Journal of the American Chemical Society*
  Wang, S., Faucher, F. F., Bertolini, M., Kim, H., Yu, B., Cao, L., Roeltgen, K., Lovell, S., Shanker, V., Boyd, S. D., Wang, L., Bartenschlager, R., Bogyo, et al
  2025

- **Identification of a secreted protease from Bacteroides fragilis that induces intestinal pain and inflammation by cleavage of PAR2.** *bioRxiv : the preprint server for biology*
  Lakemeyer, M., Latorre, R., Blazkova, K., Jensen, D., Wood, H. M., Shakil, N., Thomas, S. C., Saxena, D., Mulpuri, Y., Poolman, D., de Haro, P. D., Keller, L. J., Reed, et al
  2025

- **Covalent-fragment screening identifies selective inhibitors of multiple Staphylococcus aureus serine hydrolases important for growth and biofilm formation.** *Research square*
  Bogyo, M., Upadhyay, T., Woods, E., Ahator, S., Julin, K., Faucher, F., Hollander, M., Pedowitz, N., Abegg, D., Hammond, I., Eke, I., Wang, S., Chen, et al
  2024

- **Identification of Covalent Cyclic Peptide Inhibitors Targeting Protein-Protein Interactions Using Phage Display.** *bioRxiv : the preprint server for biology*
  Wang, S., Faucher, F. F., Bertolini, M., Kim, H., Yu, B., Cao, L., Roeltgen, K., Lovell, S., Shanker, V., Boyd, S. D., Wang, L., Bartenschlager, R., Bogyo, et al
  2024

- **An mRNA Display Approach for Covalent Targeting of a Staphylococcus aureus Virulence Factor.** *bioRxiv : the preprint server for biology*

Wang, S., Woods, E. C., Jo, J., Zhu, J., Hansel-Harris, A., Holcomb, M., Pedowitz, N. J., Upadhyay, T., Bennett, J., Fellner, M., Park, K. W., Zhang, A., Valdez, et al
2024

- **Ex vivo fluorescence-guided resection margin assessment in breast cancer surgery using a topically applied, cathepsin-activatable imaging agent.** *Pharmacological research*
  Linders, D. G., Bijlstra, O. D., Walker, E., March, T. L., Pool, M., Valentijn, A. R., Dijkhuis, T. H., Woltering, J. N., Pijl, F. R., Noordam, G., van den Burg, D., van der Sijp, J. R., Guicherit, et al
  2024: 107464

- **Immunohistochemical Evaluation of Cathepsin B, L, and S Expression in Breast Cancer Patients.** *Molecular imaging and biology*
  Linders, D. G., Bijlstra, O. D., Fallert, L. C., Dekker-Ensink, N. G., March, T. L., Pool, M., Walker, E., Straight, B., Basilion, J. P., Bogyo, M., Burggraaf, J., Hilling, D. E., Vahrmeijer, et al
  2024

- **DNA-Encoded Noncanonical Substrate Library for Protease Profiling.** *Chembiochem : a European journal of chemical biology*
  Zhang, H., Xing, Y., Yang, Y., Tang, B., Zong, Z., Li, J., Zang, Y., Bogyo, M., Lu, X., Chen, S.
  2024: e202400559

- **Discovery of Thioether-Cyclized Macrocyclic Covalent Inhibitors by mRNA Display.** *Journal of the American Chemical Society*
  Lan, T., Peng, C., Yao, X., Chan, R. S., Wei, T., Rupanya, A., Radakovic, A., Wang, S., Chen, S., Lovell, S., Snyder, S. A., Bogyo, M., Dickinson, et al
  2024

- **Mixed alkyl/aryl phosphonates identify metabolic serine hydrolases as antimalarial targets.** *Cell chemical biology*
  Bennett, J. M., Narwal, S. K., Kabeche, S., Abegg, D., Thathy, V., Hackett, F., Yeo, T., Li, V. L., Muir, R., Faucher, F., Lovell, S., Blackman, M. J., Adibekian, et al
  2024

- **DNA encoded peptide library for SARS-CoV-2 3CL protease covalent inhibitor discovery and profiling.** *RSC chemical biology*
  Xing, Y., Zhang, H., Wang, Y., Zong, Z., Bogyo, M., Chen, S.
  2024; 5 (7): 691-702

- **Polymer-Tethered Quenched Fluorescent Probes for Enhanced Imaging of Tumor-Associated Proteases.** *ACS sensors*
  Hadzima, M., Faucher, F. F., Blažková, K., Yim, J. J., Guerra, M., Chen, S., Woods, E. C., Park, K. W., Šácha, P., Šubr, V., Kostka, L., Etrych, T., Majer, et al
  2024

- **DNA encoded peptide library for SARS-CoV-2 3CL protease covalent inhibitor discovery and profiling** *RSC CHEMICAL BIOLOGY*
  Xing, Y., Zhang, H., Wang, Y., Zong, Z., Bogyo, M., Chen, S.
  2024

- **Polymer-tethered quenched fluorescent probes for enhanced imaging of tumor associated proteases.** *bioRxiv : the preprint server for biology*
  Hadzima, M., Faucher, F., Blažková, K., Yim, J. J., Guerra, M., Chen, S., Woods, E. C., Park, K. W., Šácha, P., Šubr, V., Kostka, L., Etrych, T., Majer, et al
  2024

- **Molecularly targeted protease-activated probes for visualization of glioblastoma: a comparison with 5-ALA.** *Journal of neurosurgery*
  Konečná, D., Výmola, P., Ternerová, N., Výmolová, B., Garcia-Borja, E., Mateu, R., Šroubek, F., Pankrác, J., Widen, J. C., Bogyo, M., Netuka, D., Bušek, P., Šedo, et al
  2024: 1-12

- **Recent advances in ratiometric fluorescence imaging of enzyme activity in vivo.** *Current opinion in chemical biology*
  Cosco, E. D., Bogyo, M.
  2024; 80: 102441

- **Development of Oxadiazolone Activity-Based Probes Targeting FphE for Specific Detection of Staphylococcus aureus Infections.** *Journal of the American Chemical Society*
  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.
  2024

- **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*
  Steuten, 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.
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