Stanford



Jennifer R. Cochran

Vice President for SLAC National Accelerator Laboratory and for Strategic Initiatives, Addie and Al Macovski Professor, Professor of Bioengineering and, by courtesy, of Chemical Engineering

CONTACT INFORMATION

- **Scheduling**

  Angel Smilth

  Email smitham@stanford.edu

Bio

BIO

Jennifer Cochran is the Addie and Al Macovski Professor of Bioengineering and, by courtesy, of Chemical Engineering. She is also a member of the Cancer Biology, Biophysics, and Immunology graduate programs at Stanford. She was recruited in 2005 as one of the founding faculty members of Stanford's Bioengineering department and served as its chair from 2017-2022. In addition to her faculty role, she is currently Vice President for SLAC National Accelerator Laboratory and for Strategic Initiatives at Stanford.

Professor Cochran's research and translational interests focus on protein-based drug discovery for applications in oncology, immunology, and regenerative medicine. Her work also encompasses designer protein inputs and biochemical circuits for engineered cell therapies and new tools for high throughput protein engineering and analysis. Her work has led to clinical trials, commercial applications, and several biotech startups.

Other leadership roles Professor Cochran has held at Stanford include senior associate vice provost for research (2023-2026), faculty director of the Protein Therapeutics Initiative of the Stanford Innovative Medicines Accelerator (2021-2026), co-director of the Stanford/NIH Biotechnology pre-doctoral training program (2014-2026), and Director of Graduate Studies (2014-2017).

Professor Cochran holds a PhD in biological chemistry from MIT and completed postdoctoral fellowships at MIT and the University of Pennsylvania in biological engineering and molecular biophysics, respectively. She was inducted as a fellow to the American Institute for Medical and Biological Engineering (AIMBE) and the National Academy of Engineering, the latter with a citation for "contributions to biopharmaceutical protein discovery and development, biotechnology entrepreneurship, and leadership in academic bioengineering."

ACADEMIC APPOINTMENTS

- Professor, Bioengineering
- Professor (By courtesy), Chemical Engineering
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Maternal & Child Health Research Institute (MCHRI)

- Faculty Fellow, Sarafan ChEM-H
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Senior Associate Vice Provost for Research, Vice Provost and Dean of Research, (2022-2026)
- Faculty Director, Innovative Medicines Accelerator Protein Therapeutics Initiative, (2021-2026)
- Chair, Stanford Bioengineering, (2017-2022)
- Chair/Principle Investigator, Bioengineering Coulter Grant, (2017-2022)
- Co-Director, Stanford-NIST Pre-Doctoral Training Grant, (2015-2020)
- Director, Stanford-NIH Biotechnology Predoctoral Training Grant, (2014-2026)
- Director of Graduate Studies, Stanford Bioengineering, (2014-2017)

HONORS AND AWARDS

- National Academy of Engineering, National Academy of Engineering (2025)
- College of Fellows, American Institute for Medical and Biological Engineering (AIMBE) (2018)
- Hellman Faculty Scholar Award, Hellman Foundation (2008)
- Martin D. Abeloff Scholar Award, V Foundation (2008)
- Kimmel Scholars Award, Sidney Kimmel Foundation (2007)
- Mallinckrodt Faculty Scholar Award, Edward Mallinckrodt Jr. Foundation (2007)
- McCormick Award, McCormick Foundation (2007)
- Howard Temin Award, NIH / National Cancer Institute (2004)

PROFESSIONAL EDUCATION

- Postdoctoral Fellow, MIT , Biological Engineering
- Ph. D., MIT , Biological Chemistry (2001)
- B.S., University of Delaware , Biochemistry (1995)

LINKS

- Cochran Lab website: https://cochranlab.stanford.edu/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

The Cochran laboratory uses interdisciplinary approaches in chemistry, engineering, and biophysics to study and manipulate complex biological systems. Our research is driven by the philosophy that in order to control physiological processes it is necessary to understand the biochemical mechanisms that drive these processes. We engineer protein, peptide, and antibody-based tools to elucidate receptor-mediated cell signaling events and then use these molecules to direct cellular processes and phenotypic outcomes. Clinical applications of our research include cancer therapy, immunotherapy, tissue regeneration, and ocular disease.

Examples of our work are highlighted here:

A newly published protein structure helps explain how some anti-cancer immunotherapy treatments work

https://news.stanford.edu/2024/03/11/protein-pic-help-develop-new-cancer-treatments/

Scientists engineer one protein to fight cancer and regenerate neurons

https://engineering.stanford.edu/magazine/article/scientists-engineer-one-protein-fight-cancer-and-regenerate-neurons

Protein decoy stymies lung cancer growth in mice, Stanford-UCSFstudy finds

https://med.stanford.edu/news/all-news/2019/11/protein-decoy-stymies-lung-cancer-growth-in-mice--stanford-ucsf-.html

New insight into a cancer-shielding protein could guide a new generation of cancer treatments

https://www6.slac.stanford.edu/news/2019-11-15-new-insight-cancer-shielding-protein-could-guide-new-generation-cancer-treatments

Stanford scientists create ‘guided chemotherapy missiles’

http://news.stanford.edu/2016/06/16/stanford-scientists-create-guided-chemotherapy-missiles-target-cancer-cells-spare-healthy-ones/

Stanford engineers invent process to accelerate protein evolution

http://news.stanford.edu/news/2015/december/proteins-scale-extraction-120715.html

Stanford researchers create 'evolved' protein that may stop cancer from spreading

http://news.stanford.edu/news/2014/september/metastasis-protein-therapy-092114.html

Teaching

COURSES

2026-27

- BioEntrepreneurship Bootcamp: BIOE 396 (Spr)

2025-26

- BioEntrepreneurship Bootcamp: BIOE 396 (Spr)

2024-25

- BioEntrepreneurship Bootcamp: BIOE 396 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Kif Lim, Benjamin Rosenbluth, Antonio Salcido-Alcantar JR, Anru Tian, Ashley Utz

Doctoral Dissertation Advisor (AC)

Nayla Abney, Kelcey Allen, Phillip Liu, Siena Nason, Camille Petrakian, Jack Suggs, Jocelyn Valenzuela

Doctoral Dissertation Co-Advisor (AC)

Matthew Proefke

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Bioengineering (PhD Program)
- Biophysics (PhD Program)
- Cancer Biology (PhD Program)

- Immunology (PhD Program)

Publications

PUBLICATIONS

- **An engineered NKp46 antibody for construction of multi-specific NK cell engagers.** *Protein engineering, design & selection : PEDS*
  Lee, R. B., Maddineni, S., Landry, M., Diaz, C., Tashfeen, A., Yamada-Hunter, S. A., Mackall, C. L., Beinat, C., Sunwoo, J. B., Cochran, J. R.
  2024

- **An engineered ultrahigh affinity bi-paratopic uPAR targeting agent confers enhanced tumor targeting.** *Biotechnology and bioengineering*
  Cherf, G. M., Lee, R. B., Mehta, N., Clifford, C., Torres, K., Kintzing, J. R., Cochran, J. R.
  2024

- **Engineered CD47 protects T cells for enhanced antitumour immunity.** *Nature*
  Yamada-Hunter, S. A., Theruvath, J., McIntosh, B. J., Freitas, K. A., Lin, F., Radosevich, M. T., Leruste, A., Dhingra, S., Martinez-Velez, N., Xu, P., Huang, J., Delaidelli, A., Desai, et al
  2024

- **Structural insights reveal interplay between LAG-3 homodimerization, ligand binding, and function.** *Proceedings of the National Academy of Sciences of the United States of America*
  Silberstein, J. L., Du, J., Chan, K. W., Frank, J. A., Mathews, I. I., Kim, Y. B., You, J., Lu, Q., Liu, J., Philips, E. A., Liu, P., Rao, E., Fernandez, et al
  2024; 121 (12): e2310866121

- **An engineered interleukin-11 decoy cytokine inhibits receptor signaling and proliferation in lung adenocarcinoma.** *Bioengineering & translational medicine*
  McIntosh, B. J., Hartmann, G. G., Yamada-Hunter, S. A., Liu, P., Williams, C. F., Sage, J., Cochran, J. R.
  2023; 8 (6): e10573

- **An engineered interleukin-1 decoy cytokine inhibits receptor signaling and proliferation in lung adenocarcinoma** *BIOENGINEERING & TRANSLATIONAL MEDICINE*
  McIntosh, B. J., Hartmann, G. G., Yamada-Hunter, S. A., Liu, P., Williams, C. F., Sage, J., Cochran, J. R.
  2023

- **Targeted TLR9 Agonist Elicits Effective Antitumor Immunity against Spontaneously Arising Breast Tumors.** *Journal of immunology (Baltimore, Md. : 1950)*
  Miller, C. L., Sagiv-Barfi, I., Neuhöfer, P., Czerwinski, D. K., Bertozzi, C. R., Cochran, J. R., Levy, R.
  2023

- **Mutational screens highlight glycosylation as a modulator of colony-stimulating factor 3 receptor (CSF3R) activity.** *The Journal of biological chemistry*
  Hollander, M. J., Malaker, S. A., Riley, N. M., Perez, I., Abney, N. M., Gray, M. A., Maxson, J. E., Cochran, J. R., Bertozzi, C. R.
  2023: 104755

- **Enhanced safety and efficacy of protease-regulated CAR-T cell receptors.** *Cell*
  Labanieh, L., Majzner, R. G., Klysz, D., Sotillo, E., Fisher, C. J., Vilches-Moure, J. G., Pacheco, K. Z., Malipatlolla, M., Xu, P., Hui, J. H., Murty, T., Theruvath, J., Mehta, et al
  2022

- **An engineered ligand trap inhibits leukemia inhibitory factor as pancreatic cancer treatment strategy.** *Communications biology*
  Hunter, S. A., McIntosh, B. J., Shi, Y., Sperberg, R. A., Funatogawa, C., Labanieh, L., Soon, E., Wastyk, H. C., Mehta, N., Carter, C., Hunter, T., Cochran, J. R.
  2021; 4 (1): 452

- **Systemic delivery of a targeted synthetic immunostimulant transforms the immune landscape for effective tumor regression.** *Cell chemical biology*
  Miller, C. L., Sagiv-Barfi, I., Neuhöfer, P., Czerwinski, D. K., Artandi, S. E., Bertozzi, C. R., Levy, R., Cochran, J. R.
  2021

- **Engineering a potent receptor superagonist or antagonist from a novel IL-6 family cytokine ligand.** *Proceedings of the National Academy of Sciences of the United States of America*

Kim, J. W., Marquez, C. P., Sperberg, R. A., Wu, J., Bae, W. G., Huang, P., Sweet-Cordero, E. A., Cochran, J. R.
2020

- **Antitumor activity of an engineered decoy receptor targeting CLCF1-CNTFR signaling in lung adenocarcinoma.** *Nature medicine*
  Kim, J. W., Marquez, C. P., Kostyrko, K. n., Koehne, A. L., Marini, K. n., Simpson, D. R., Lee, A. G., Leung, S. G., Sayles, L. C., Shrager, J. n., Ferrer, I. n., Paz-Ares, L. n., Gephart, et al
  2019

- **Structure and Functional Binding Epitope of V-domain Ig Suppressor of T Cell Activation.** *Cell reports*
  Mehta, N. n., Maddineni, S. n., Mathews, I. I., Andres Parra Sperberg, R. n., Huang, P. S., Cochran, J. R.
  2019; 28 (10): 2509–16.e5

- **Integrin-targeted cancer immunotherapy elicits protective adaptive immune responses.** *journal of experimental medicine*
  Kwan, B. H., Zhu, E. F., Tzeng, A., Sugito, H. R., Eltahir, A. A., Ma, B., Delaney, M. K., Murphy, P. A., Kauke, M. J., Angelini, A., Momin, N., Mehta, N. K., Maragh, et al
  2017; 214 (6): 1679-1690

- **High-throughput analysis and protein engineering using microcapillary arrays.** *Nature chemical biology*
  Chen, B., Lim, S., Kannan, A., Alford, S. C., Sunden, F., Herschlag, D., Dimov, I. K., Baer, T. M., Cochran, J. R.
  2016; 12 (2): 76-81

- **An engineered Axl 'decoy receptor' effectively silences the Gas6-Axl signaling axis** *NATURE CHEMICAL BIOLOGY*
  Kariolis, M. S., Miao, Y. R., Ii, D. S., Kapur, S., Mathews, I. I., Giaccia, A. J., Cochran, J. R.
  2014; 10 (11): 977-983

- **Engineered knottin peptide enables noninvasive optical imaging of intracranial medulloblastoma.** *Proceedings of the National Academy of Sciences of the United States of America*
  Moore, S. J., Hayden Gephart, M. G., Bergen, J. M., Su, Y. S., Rayburn, H., Scott, M. P., Cochran, J. R.
  2013; 110 (36): 14598-14603

- **Scientific breakthrough versus successful startup: teaching scientists to navigate bench to business.** *Trends in biotechnology*
  Yang, S., Cochran, J. R., Chapman, R., Mulyasasmita, W.
  2026

- **IGSF11-VISTA is a critical and targetable immune checkpoint axis in diffuse midline glioma.** *Cancer cell*
  Collot, R., Ruiz-Moreno, C., Honhoff, C., van den Broek, T. J., Wezenaar, A. K., Kloosterman, D. J., Ariese, H. C., Johnson, H., Vervoort, B. M., Jeiroshi, A., Bunt, J., van Ineveld, R. L., Bokobza, et al
  2026

- **VISTA immune checkpoint blunts radiotherapy-induced antitumor immune response.** *Cell reports*
  Nambiar, D. K., Maddineni, S., Langthasa, J., Cao, H., Viswanathan, V., Liu, J., Islam, M. T., Mehta, N., Frank, J., Real, A., Cheunkarndee, T., Laseinde, E. E., Dharmadhikari, et al
  2025; 44 (7): 115893

- **Exploring new frontiers in LAG-3 biology and therapeutics.** *Trends in pharmacological sciences*
  Wang, J., Klein, C., Cochran, J. R., Sockolosky, J., Lippow, S. M.
  2025

- **STASH-Select: a platform for multi-vector engineering and single-step selection of cell therapies bearing multiple enhancements**
  Labanieh, L., Pacheco, K., Arenas, M., Fisher, C., Arredondo-Guerrero, J., Yamada-Hunter, S., Xu, P., Bjelajac, J., Sotillo, E., Majzner, R., Cochran, J., Mackall, C.
  CELL PRESS.2025

- **The CLCF1-CNTFR axis drives an immunosuppressive tumor microenvironment and blockade enhances the effects of established cancer therapies.** *Research square*
  Sweet-Cordero, E., Marini, K., Champion, E., Lee, A., Young, I., Leung, S., Mathey-Andrews, N., Jacks, T., Jackson, P., Cochran, J.
  2024

- **Grand Challenges at the Interface of Engineering and Medicine.** *IEEE open journal of engineering in medicine and biology*
  Subramaniam, S., Akay, M., Anastasio, M. A., Bailey, V., Boas, D., Bonato, P., Chilkoti, A., Cochran, J. R., Colvin, V., Desai, T. A., Duncan, J. S., Epstein, F. H., Fraley, et al

2024; 5: 1-13

- **De novo design of highly selective miniprotein inhibitors of integrins αvβ6 and αvβ8.** *Nature communications*
  Roy, A., Shi, L., Chang, A., Dong, X., Fernandez, A., Kraft, J. C., Li, J., Le, V. Q., Winegar, R. V., Cherf, G. M., Slocum, D., Poulson, P. D., Casper, et al
  2023; 14 (1): 5660
- **De novo design of highly selective miniprotein inhibitors of integrins αvβ6 and αvβ8.** *bioRxiv : the preprint server for biology*
  Roy, A., Shi, L., Chang, A., Dong, X., Fernandez, A., Kraft, J. C., Li, J., Le, V. Q., Winegar, R. V., Cherf, G. M., Slocum, D., Daniel Poulson, P., Casper, et al
  2023
- **PROFILING THE EFFECTS OF TARGETED TLR9 STIMULATION WITHIN SPONTANEOUSLY ARISING BREAST TUMORS**
  Miller, C., Sagiv-Barfi, I., Neuhoefer, P., Czerwinski, D., Bertozzi, C., Cochran, J., Levy, R.
  BMJ PUBLISHING GROUP.2022: A1209
- **STASH SELECT, A SIMPLE AND ROBUST METHOD OF PURIFYING CELLS ENGINEERED WITH MULTIPLE VECTORS USING A SINGLE SELECTION MARKER**
  Labanieh, L., Pacheco, K., Majzner, R., Fisher, C., Sotillo, E., Xu, P., Cochran, J., Mackall, C.
  BMJ PUBLISHING GROUP.2022: A371
- **Broad-spectrum CRISPR-mediated inhibition of SARS-CoV-2 variants and endemic coronaviruses in vitro.** *Nature communications*
  Zeng, L., Liu, Y., Nguyenla, X. H., Abbott, T. R., Han, M., Zhu, Y., Chemparathy, A., Lin, X., Chen, X., Wang, H., Rane, D. A., Spatz, J. M., Jain, et al
  2022; 13 (1): 2766
- **Delivery of CAR-T cells in a transient injectable stimulatory hydrogel niche improves treatment of solid tumors.** *Science advances*
  Grosskopf, A. K., Labanieh, L., Klysz, D. D., Roth, G. A., Xu, P., Adebowale, O., Gale, E. C., Jons, C. K., Klich, J. H., Yan, J., Maikawa, C. L., Correa, S., Ou, et al
  2022; 8 (14): eabn8264
- **Anti-GD2 synergizes with CD47 blockade to mediate tumor eradication.** *Nature medicine*
  Theruvath, J., Menard, M., Smith, B. A., Linde, M. H., Coles, G. L., Dalton, G. N., Wu, W., Kiru, L., Delaidelli, A., Sotillo, E., Silberstein, J. L., Geraghty, A. C., Banuelos, et al
  1800
- **SYSTEMIC DELIVERY OF A TUMOR-TARGETED TLR9 AGONIST CONJUGATE TRANSFORMS THE TUMOR IMMUNE LANDSCAPE AND INDUCES TUMOR REGRESSION IN MICE**
  Candidate, C., Sagiv-Barfi, I., Neuhoefer, P., Czerwinski, D., Artandi, S., Bertozzi, C., Levy, R., Cochran, J.
  BMJ PUBLISHING GROUP.2021: A803
- **Heterogeneous delivery across the blood-brain barrier limits the efficacy of an EGFR-targeting antibody drug conjugate in glioblastoma.** *Neuro-oncology*
  Marin, B., Porath, K. A., Jain, S., Kim, M., Conage-Pough, J. E., Oh, J., Miller, C. L., Talele, S., Kitange, G. J., Tian, S., Burgenske, D. M., Mladek, A. C., Gupta, et al
  2021
- **VISTA immune-checkpoint blunts radiotherapy induced anti-tumor immune response.**
  Nambiar, D. K., Mehta, N., Maddineni, S., Cao, H., Viswanathan, V., Cheunkarndee, T., Cochran, J. R., Quynh Thu Le
  AMER ASSOC CANCER RESEARCH.2021
- **LYTACs that engage the asialoglycoprotein receptor for targeted protein degradation.** *Nature chemical biology*
  Ahn, G., Banik, S. M., Miller, C. L., Riley, N. M., Cochran, J. R., Bertozzi, C. R.
  2021
- **Neutralizing antibodies targeting the SARS-CoV-2 receptor binding domain isolated from a naive human antibody library.** *Protein science : a publication of the Protein Society*
  Bell, B. N., Powell, A. E., Rodriguez, C., Cochran, J. R., Kim, P. S.
  2021
- **Use of Outpatient-Derived COVID-19 Convalescent Plasma in COVID-19 Patients Before Seroconversion.** *Frontiers in immunology*
  Wirz, O. F., Roltgen, K., Stevens, B. A., Pandey, S., Sahoo, M. K., Tolentino, L., Verghese, M., Nguyen, K., Hunter, M., Snow, T. T., Singh, A. R., Blish, C. A., Cochran, et al

2021; 12: 739037

- **Identification of N-Terminally Diversified GLP-1R Agonists Using Saturation Mutagenesis and Chemical Design.** *ACS chemical biology*
  Longwell, C. K., Hanna, S., Hartrampf, N., Sperberg, R. A., Huang, P., Pentelute, B. L., Cochran, J. R.
  2020
- **PET reporter gene imaging and ganciclovir-mediated ablation of chimeric antigen receptor T-cells in solid tumors.** *Cancer research*
  Murty, S., Labanieh, L., Murty, T., Gowrishankar, G., Haywood, T., Alam, I. S., Beinat, C., Robinson, E., Aalipour, A., Klysz, D. D., Cochran, J. R., Majzner, R. G., Mackall, et al
  2020
- **An engineered antibody binds a distinct epitope and is a potent inhibitor of murine and human VISTA.** *Scientific reports*
  Mehta, N., Maddineni, S., Kelly, R. L., Lee, R. B., Hunter, S. A., Silberstein, J. L., Parra Sperberg, R. A., Miller, C. L., Rabe, A., Labanieh, L., Cochran, J. R.
  2020; 10 (1): 15171
- **SARS-CoV-2 Antibody Responses Correlate with Resolution of RNAemia But Are Short-Lived in Patients with Mild Illness.** *medRxiv : the preprint server for health sciences*
  Röltgen, K., Wirz, O. F., Stevens, B. A., Powell, A. E., Hogan, C. A., Najeeb, J., Hunter, M., Sahoo, M. K., Huang, C., Yamamoto, F., Manalac, J., Otrelo-Cardoso, A. R., Pham, et al
  2020
- **Novel NanoLuc substrates enable bright two-population bioluminescence imaging in animals.** *Nature methods*
  Su, Y., Walker, J. R., Park, Y., Smith, T. P., Liu, L. X., Hall, M. P., Labanieh, L., Hurst, R., Wang, D. C., Encell, L. P., Kim, N., Zhang, F., Kay, et al
  2020
- **Multi-phase catheter-injectable hydrogel enables dual-stage protein-engineered cytokine release to mitigate adverse left ventricular remodeling following myocardial infarction in a small animal model and a large animal model.** *Cytokine*
  Steele, A. N., Paulsen, M. J., Wang, H. n., Stapleton, L. M., Lucian, H. J., Eskandari, A. n., Hironaka, C. E., Farry, J. M., Baker, S. W., Thakore, A. D., Jaatinen, K. J., Tada, Y. n., Hollander, et al
  2020; 127: 154974
- **CD52 Is Elevated on B cells of SLE Patients and Regulates B Cell Function.** *Frontiers in immunology*
  Bhamidipati, K. n., Silberstein, J. L., Chaichian, Y. n., Baker, M. C., Lanz, T. V., Zia, A. n., Rasheed, Y. S., Cochran, J. R., Robinson, W. H.
  2020; 11: 626820
- **Defining the features and duration of antibody responses to SARS-CoV-2 infection associated with disease severity and outcome.** *Science immunology*
  Röltgen, K. n., Powell, A. E., Wirz, O. F., Stevens, B. A., Hogan, C. A., Najeeb, J. n., Hunter, M. n., Wang, H. n., Sahoo, M. K., Huang, C. n., Yamamoto, F. n., Manohar, M. n., Manalac, et al
  2020; 5 (54)
- **Structural Basis of the Differential Binding of Engineered Knottins to Integrins alphaVbeta3 and alpha5beta1.** *Structure (London, England : 1993)*
  Van Agthoven, J. F., Shams, H., Cochran, F. V., Alonso, J. L., Kintzing, J. R., Garakani, K., Adair, B. D., Xiong, J., Mofrad, M. R., Cochran, J. R., Arnaout, M. A.
  2019
- **An engineered dimeric fragment of hepatocyte growth factor improves corneal epithelial wound healing in vitro**
  Carter, K., Ye, A., Fernandes-Cunha, G., Cochran, J. R., Myung, D.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2019
- **Next-generation protein therapeutics: Challenges and opportunities**
  Cochran, J.
  AMER CHEMICAL SOC.2019
- **Engineering ligand-based receptor agonists or antagonists as next-generation protein therapeutics**
  Cochran, J.
  AMER CHEMICAL SOC.2018
- **Targeting the CLCF1-CNTFR signaling axis using directed evolution for lung cancer therapy**
  Marquez, C., Kim, J., Giaccia, A., Cochran, J., Sweet-Cordero, A.

AMER ASSOC CANCER RESEARCH.2018

- **Engineering a potent inhibitor of matriptase from the natural hepatocyte growth factor activator inhibitor type-1 (HAI-1) protein** *JOURNAL OF BIOLOGICAL CHEMISTRY*
  Mitchell, A. C., Kannan, D., Hunter, S. A., Sperberg, R., Chang, C. H., Cochran, J. R.
  2018; 293 (14): 4969–80
- **Photoactive Split Green Fluorescent Protein: Engineering a New Optogenetic and Imaging System**
  Romei, M. G., Longwell, C. K., Cochran, J. R., Boxer, S. G.
  CELL PRESS.2018: 177A–178A
- **Development of a Protease Biosensor Based on a Dimerization-Dependent Red Fluorescent Protein** *ACS CHEMICAL BIOLOGY*
  Mitchell, A. C., Alford, S. C., Hunter, S. A., Kannan, D., Sperberg, R., Chang, C. H., Cochran, J. R.
  2018; 13 (1): 66–72
- **High-throughput screening technologies for enzyme engineering** *CURRENT OPINION IN BIOTECHNOLOGY*
  Longwell, C. K., Labanieh, L., Cochran, J. R.
  2017; 48: 196–202
- **Heterochiral Knottin Protein: Folding and Solution Structure** *BIOCHEMISTRY*
  Mong, S. K., Cochran, F. V., Yu, H., Graziano, Z., Lin, Y., Cochran, J. R., Pentelute, B. L.
  2017; 56 (43): 5720–25
- **A novel protein-engineered hepatocyte growth factor analog released via a shear-thinning injectable hydrogel enhances post-infarction ventricular function.** *Biotechnology and bioengineering*
  Steele, A. N., Cai, L., Truong, V. N., Edwards, B. B., Goldstone, A. B., Eskandari, A., Mitchell, A. C., Marquardt, L. M., Foster, A. A., Cochran, J. R., Heilshorn, S. C., Woo, Y. J.
  2017
- **Dual display of proteins on the yeast cell surface simplifies quantification of binding interactions and enzymatic bioconjugation reactions** *BIOTECHNOLOGY JOURNAL*
  Lim, S., Glasgow, J. E., Interrante, M. F., Storm, E. M., Cochran, J. R.
  2017; 12 (5)
- **Measurements of translation initiation from all 64 codons in E. coli** *NUCLEIC ACIDS RESEARCH*
  Hecht, A., Glasgow, J., Jaschke, P. R., Bawazer, L. A., Munson, M. S., Cochran, J. R., Endy, D., Salit, M.
  2017; 45 (7): 3615-3626
- **Using natural ligand and receptors to develop next-generation cancer therapeutics**
  Kim, J., Marquez, C., Sweet-Cordero, A., Cochran, J.
  AMER CHEMICAL SOC.2017
- **In vivo site-specific protein tagging with diverse amines using an engineered sortase variant**
  Glasgow, J., Salit, M., Cochran, J.
  AMER CHEMICAL SOC.2017
- **Engineering an antagonist of the urokinase receptor to inhibit cancer growth and metastasis**
  Cherf, G., Mehta, N., Kintzing, J., Cochran, J.
  AMER CHEMICAL SOC.2017
- **Targeting ligand-receptor interactions for development of cancer therapeutics.** *Current opinion in chemical biology*
  Kim, J. W., Cochran, J. R.
  2017; 38: 62-69
- **Engineered ligand-based VEGFR antagonists with increased receptor binding affinity more effectively inhibit angiogenesis.** *Bioengineering & translational medicine*
  Kapur, S., Silverman, A. P., Ye, A. Z., Papo, N., Jindal, D., Blumenkranz, M. S., Cochran, J. R.
  2017; 2 (1): 81-91
- **Engineering High Affinity Protein-Protein Interactions Using a High-Throughput Microcapillary Array Platform.** *ACS chemical biology*
  Lim, S., Chen, B., Kariolis, M. S., Dimov, I. K., Baer, T. M., Cochran, J. R.

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