Stanford



Edward A. Pham

Instructor, Medicine - Gastroenterology & Hepatology

CLINICAL OFFICE (PRIMARY)

- **Stanford Gastroenterology and Digestive Health Clinic**
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Bio

BIO

My interest in medicine and research was triggered by my mother's battle with chronic hepatitis C, which made me realize the transformational power of biomedical research in treating patients. Therefore, my career goal is to become a physician scientist in the field of gastroenterology and hepatology dedicated to translating discoveries in the laboratory into novel medical treatment modalities. My research focus is alterations in phosphoinositides signaling and its pathogenesis in cancers of the hepatobiliary and luminal GI tract with the goal to identify novel targets for therapeutic intervention. I also have a particular interest in understanding the interface between chronic viral infection and cancer through studying how the innate and adaptive immune system are perturbed in chronic viral infections

CLINICAL FOCUS

- Gastroenterology

ACADEMIC APPOINTMENTS

- Instructor, Medicine - Gastroenterology & Hepatology

ADMINISTRATIVE APPOINTMENTS

- Deputy Director, ViRx@Stanford - Stanford Biosecurity and Pandemic Preparedness Initiative, (2022- present)

HONORS AND AWARDS

- Chem-H Physician Scientist Postdoctoral Fellowship, Stanford Chem-H (2018)
- Nation Research Service Fellowship for MD/PhD (F30), NIH (2013)
- International Achievement Summit Delegate, Academy of Achievement (2011)
- HHMI Medical Student Research Fellowship, Howard Hughes Medical Institute (2010)
- Paul and Daisy Soros Fellowships for New Americans, The Soros Foundation (2009)
- Phi Beta Kappa, UCLA (2008)
- Summa Cum Laude, UCLA (2008)

- Departmental Citation for top graduate, Outstanding Bachelor of Science, UCLA Bioengineering (2008)
- Bioengineering Capstone Design Winner, UCLA Bioengineering (2008)
- Dean's Prize for Outstanding Undergraduate Researcher, UCLA Dean's office (2007)
- Tau Beta Pi, UCLA School of Engineering (2007)
- Gates Millennium Scholar, Bill and Melinda Gates Foundation (2004)

PROFESSIONAL EDUCATION

- Fellowship: Stanford University Division of Gastroenterology and Hepatology (2022) CA
- Board Certification: Gastroenterology, American Board of Internal Medicine (2022)
- Medical Education: Stanford University School of Medicine (2016) CA
- Board Certification: Internal Medicine, American Board of Internal Medicine (2019)
- Residency: Case Western Reserve University Internal Medicine Residency (2018) OH

Publications

PUBLICATIONS

- **Programmable antivirals targeting critical conserved viral RNA secondary structures from influenza A virus and SARS-CoV-2.** *Nature medicine*

  Hagey, R. J., Elazar, M., Pham, E. A., Tian, S., Ben-Avi, L., Bernardin-Souibgui, C., Yee, M. F., Moreira, F. R., Rabinovitch, M. V., Meganck, R. M., Fram, B., Beck, A., Gibson, et al

  2022

- **Cryo-EM and antisense targeting of the 28-kDa frameshift stimulation element from the SARS-CoV-2 RNA genome.** *Nature structural & molecular biology*

  Zhang, K., Zheludev, I. N., Hagey, R. J., Haslecker, R., Hou, Y. J., Kretsch, R., Pintilie, G. D., Rangan, R., Kladwang, W., Li, S., Wu, M. T., Pham, E. A., Bernardin-Souibgui, et al

  2021

- **Signatures of immune dysfunction in HIV and HCV infection share features with chronic inflammation in aging and persist after viral reduction or elimination.** *Proceedings of the National Academy of Sciences of the United States of America*

  Lopez Angel, C. J., Pham, E. A., Du, H. n., Vallania, F. n., Fram, B. J., Perez, K. n., Nguyen, T. n., Rosenberg-Hasson, Y. n., Ahmed, A. n., Dekker, C. L., Grant, P. M., Khatri, P. n., Maecker, et al

  2021; 118 (14)

- **RNA genome conservation and secondary structure in SARS-CoV-2 and SARS-related viruses: a first look.** *RNA (New York, N.Y.)*

  Rangan, R., Zheludev, I. N., Das, R.

  2020

- **High Prevalence of Concurrent Gastrointestinal Manifestations in Patients with SARS-CoV-2: Early Experience from California.** *Gastroenterology*

  Cholankeril, G., Podboy, A., Aivaliotis, V. I., Tarlow, B., Pham, E. A., Spencer, S., Kim, D., Hsing, A., Ahmed, A.

  2020

- **Fecal Microbiota Transplantation for Chronic Liver Diseases: Current Understanding and Future Direction.** *Digestive diseases and sciences*

  Lechner, S., Yee, M., Limketkai, B. N., Pham, E. A.

  2020

- **PI4KIIIβ is a therapeutic target in chromosome 1q-amplified lung adenocarcinoma.** *Science translational medicine*

  Tan, X. n., Banerjee, P. n., Pham, E. A., Rutaganira, F. U., Basu, K. n., Bota-Rabassedas, N. n., Guo, H. F., Grzeskowiak, C. L., Liu, X. n., Yu, J. n., Shi, L. n., Peng, D. H., Rodriguez, et al

  2020; 12 (527)

- **Association of Digestive Symptoms and Hospitalization in Patients With SARS-CoV-2 Infection.** *The American journal of gastroenterology*

  Cholankeril, G. n., Podboy, A. n., Aivaliotis, V. I., Pham, E. A., Spencer, S. P., Kim, D. n., Ahmed, A. n.

  2020; 115 (7): 1129–32

- **A functional subset of CD8+ T cells during chronic exhaustion is defined by SIRPalpha expression.** *Nature communications*
  Myers, L. M., Tal, M. C., Torrez Dulgeroff, L. B., Carmody, A. B., Messer, R. J., Gulati, G., Yiu, Y. Y., Staron, M. M., Angel, C. L., Sinha, R., Markovic, M., Pham, E. A., Fram, et al
  2019; 10 (1): 794

- **Trends in Mortality From Extrahepatic Complications in Patients With Chronic Liver Disease, From 2007 Through 2017.** *Gastroenterology*
  Kim, D. n., Adejumo, A. C., Yoo, E. R., Iqbal, U. n., Li, A. A., Pham, E. A., Cholankeril, G. n., Glenn, J. S., Ahmed, A. n.
  2019

- **Differences in Hepatocellular Carcinoma Incidence and Survival Rates among Asian Mono-Ethnicities**
  Cholankeril, G., Perumpail, R. B., Hu, M., Pham, E. A., Kumari, R., Gish, R., So, S. K., Dhanasekaran, R., Ahmed, A.
  WILEY.2016: 860A

- **Nonalcoholic Fatty Liver Disease: Epidemiology, Natural History, and Diagnostic Challenges.** *Hepatology*
  Cholankeril, G., Perumpail, R. B., Pham, E. A., Ahmed, A., Harrison, S. A.
  2016; 64 (3): 954-?

- **Reconstitution and Functional Analysis of a Full-Length Hepatitis C Virus NS5B Polymerase on a Supported Lipid Bilayer.** *ACS central science*
  Cho, N., Pham, E. A., Hagey, R. J., Lévêque, V. J., Ma, H., Klumpp, K., Glenn, J. S.
  2016; 2 (7): 456-466

- **Profiling system-wide immune signaling in chronic viral infection and its response to viral clearance**
  Angel, C., Furman, D., Pham, E., Fram, B., Thai Nguyen, Ahmed, A., Grant, P., Maecker, H. T., Glenn, J., Davis, M. M.
  AMER ASSOC IMMUNOLOGISTS.2016

- **A New Standard of Care? Standard Dose Sofosbuvir in an HCV-Infected Liver Transplant Recipient Undergoing Hemodialysis** *DIGESTIVE DISEASES AND SCIENCES*
  Perumpail, R. B., Wong, R. J., Pham, E. A., Higgins, J. P., Daugherty, T. J., Ahmed, A.
  2016; 61 (1): 39-41

- **A New Standard of Care? Standard Dose Sofosbuvir in an HCV-Infected Liver Transplant Recipient Undergoing Hemodialysis.** *Digestive diseases and sciences*
  Perumpail, R. B., Wong, R. J., Pham, E. A., Higgins, J. P., Daugherty, T. J., Ahmed, A.
  2016; 61 (1): 39-41

- **Future Therapy for Hepatitis B Virus: Role of Immunomodulators.** *Current hepatology reports*
  Pham, E. A., Perumpail, R. B., Fram, B. J., Glenn, J. S., Ahmed, A., Gish, R. G.
  2016; 15 (4): 237-244

- **Task-Shifting: An Approach to Decentralized Hepatitis C Treatment in Medically Underserved Areas** *DIGESTIVE DISEASES AND SCIENCES*
  Jayasekera, C. R., Perumpail, R. B., Chao, D. T., Pham, E. A., Aggarwal, A., Wong, R. J., Ahmed, A.
  2015; 60 (12): 3552-3557

- **Phosphatidylinositol 4,5-Bisphosphate Is an HCV NS5A Ligand and Mediates Replication of the Viral Genome.** *Gastroenterology*
  Cho, N., Lee, C., Pang, P. S., Pham, E. A., Fram, B., Nguyen, K., Xiong, A., Sklan, E. H., Elazar, M., Koytak, E. S., Kersten, C., Kanazawa, K. K., Frank, et al
  2015; 148 (3): 616-625

- **Using Chimeric Mice with Humanized Livers to Predict Human Drug Metabolism and a Drug-Drug Interaction** *JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS*
  Nishimura, T., Hu, Y., Wu, M., Pham, E., Suemizu, H., Elazar, M., Liu, M., Idilman, R., Yurdaydin, C., Angus, P., Stedman, C., Murphy, B., Glenn, et al
  2013; 344 (2): 388-396

- **An HCV IRES element regulates viral replication independent of translation** *63rd Annual Meeting of the American-Association-for-the-Study-of-Liver-Diseases (AASLD)*
  Pham, E. A., Cho, N., Pang, P. S., Leveque, V. J., Ma, H., Klumpp, K., Glenn, J.
  WILEY-BLACKWELL.2012: 706A–706A

- **Structural Map of a MicroRNA-122: Hepatitis C Virus Complex** *JOURNAL OF VIROLOGY*
  Pang, P. S., Pham, E. A., Elazar, M., Patel, S. G., Eckart, M. R., Glenn, J. S.

2012; 86 (2): 1250-1254

- **Simplified RNA secondary structure mapping by automation of SHAPE data analysis** *NUCLEIC ACIDS RESEARCH*
  Pang, P. S., Elazar, M., Pham, E. A., Glenn, J. S.
  2011; 39 (22)

- **STRUCTURAL INSIGHTS INTO THE MECHANISM OF MICRORNA-MODULATED HCV TRANSLATION** *61st Annual Meeting of the American-Association-for-the-Study-of-Liver-Diseases*
  Pang, P. S., Pham, E. A., Patel, S. G., Winters, M. A., Eckart, M. R., Glenn, J. S.
  WILEY-BLACKWELL.2010: 816A–817A