



Aida Habtezion MD MSc.

Associate Professor of Medicine (Gastroenterology and Hepatology)

Medicine - Gastroenterology & Hepatology

CLINICAL OFFICES

- **Digestive Health Clinic**

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Bio

CLINICAL FOCUS

- Gastroenterology
- Inflammatory Bowel Diseases

ACADEMIC APPOINTMENTS

- Associate Professor, Medicine - Gastroenterology & Hepatology
- Member, Bio-X
- Member, Stanford Cancer Institute
- Faculty Fellow, Stanford ChEM-H
- Member, Stanford Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Associate Professor of Medicine, Division of Gastroenterology & Hepatology, Stanford University, (2017- present)
- Member, National Scientific Advisory Committee (Crohn's and Colitis Foundation of America, CCFA), (2015-2018)
- Member, Clinical, Integrative and Molecular Gastroenterology Study Section (NIH), (2012- present)
- Editorial Board, Gastroenterology, (2011- present)
- Member, Immunology Postgraduate Program Committee, Stanford University, (2011-2014)
- Assistant Professor of Medicine, Division of Gastroenterology & Hepatology, Stanford University, (2010-2017)
- Editorial Board, Digestive Diseases and Sciences, (2008-2013)
- Instructor, Division of Gastroenterology & Hepatology, Stanford University, (2007-2010)

HONORS AND AWARDS

- Synergy Award, Kenneth Rainin Foundation (2017 - 2019)
- Inducted to The American Society for Clinical Investigation, ASCI (2017)

- Endowed Ballinger-Swindells Family Scholar, Stanford University (2016 - Present)
- Immunology Faculty Mentor of the Year, Stanford University (2015 - 2016)
- Division Teaching Award, Stanford University (2013)
- Harold Amos Medical Faculty Development Award, Robert Wood Johnson Foundation (2011-2015)
- DDC Named Investigator, Stanford Digestive Disease Center (DDC) (2010-2011)
- Pilot/Feasibility Award, Stanford Digestive Disease Center (2007-2008)
- Clinical Scientist Career Development Award (K08), NIH/NIDDK (2006-2011)

PROFESSIONAL EDUCATION

- Medical Education: McMaster University Michael G DeGroote School of Medicine Registrar (1996) Canada
- Fellowship: Stanford University School of Medicine (2005) CA
- Board Certification: Gastroenterology, American Board of Internal Medicine (2007)
- Postdoctoral Research Fellowship, Stanford , University (2006)
- Board Certification, Gastroenterology , Royal College of Physicians of Canada (2002)
- Fellowship: University of Toronto (2002) Canada
- Board Certification, Internal Medicine: American Board of Internal Medicine & , Royal College of Physicians of Canada (1999)
- Residency: University of Western Ontario (1999) Canada

LINKS

- Habtezion Lab: <http://med.stanford.edu/habtezionlab.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Leukocyte recruitment & immune responses in diseases affecting digestive organs

CLINICAL TRIALS

- Localized Therapeutics for the Treatment of Gastrointestinal Disorders, Recruiting
- Gastric Acid Suppression and Probiotic Colonization, Not Recruiting

Teaching

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Sarah Barnes, Robert Yuan

Postdoctoral Faculty Sponsor

Bomi Lee, Murli Manohar, Estelle Spear, Qinglan Zhao

Postdoctoral Research Mentor

Andres Gottfried Blackmore, Yeneneh Haileselassie, Murli Manohar, Hong Namkoong, Estelle Spear

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Immunology (Phd Program)
- Medicine (Masters Program)

Publications

PUBLICATIONS

- **STING Signaling Promotes Inflammation in Experimental Acute Pancreatitis.** *Gastroenterology*
Zhao, Q., Wei, Y., Pandol, S. J., Li, L., Habtezion, A.
2018; 154 (6): 1822
- **The Interface of Pancreatic Cancer With Diabetes, Obesity, and Inflammation: Research Gaps and Opportunities: Summary of a National Institute of Diabetes and Digestive and Kidney Diseases Workshop** *PANCREAS*
Abbruzzese, J. L., Andersen, D. K., Borrebaeck, C. K., Chari, S. T., Costello, E., Cruz-Monserrate, Z., Eibl, G., Engleman, E. G., Fisher, W. E., Habtezion, A., Kim, S. K., Korc, M., Logsdon, et al
2018; 47 (5): 516–25
- **Diabetes Mellitus and Obesity as Risk Factors for Pancreatic Cancer** *JOURNAL OF THE ACADEMY OF NUTRITION AND DIETETICS*
Eibl, G., Cruz-Monserrate, Z., Korc, M., Petrov, M. S., Goodarzi, M. O., Fisher, W. E., Habtezion, A., Lugea, A., Pandol, S. J., Hart, P. A., Andersen, D. K., Consortium Study Chronic Pancreati
2018; 118 (4): 555–67
- **Autophagy, Inflammation, and Immune Dysfunction in the Pathogenesis of Pancreatitis** *GASTROENTEROLOGY*
Gukovskaya, A. S., Gukovsky, I., Alguel, H., Habtezion, A.
2017; 153 (5): 1212–26
- **Setting up a Lab: The Early Years** *CELLULAR AND MOLECULAR GASTROENTEROLOGY AND HEPATOLOGY*
Habtezion, A.
2017; 4 (3): 445–46
- **A Mucosal and Cutaneous Chemokine Ligand for the Lymphocyte Chemoattractant Receptor GPR15** *FRONTIERS IN IMMUNOLOGY*
Ocon, B., Pan, J., Dinh, T., Chen, W., Ballet, R., Bscheider, M., Habtezion, A., Tu, H., Zabel, B. A., Butcher, E. C.
2017; 8: 1111
- **Immunology of pancreatitis and environmental factors** *CURRENT OPINION IN GASTROENTEROLOGY*
Lee, B., Zhao, Q., Habtezion, A.
2017; 33 (5): 383–89
- **Editors' Introduction to the Chronic Pancreatitis and Pancreatic Cysts Special Issue.** *Digestive diseases and sciences*
Park, W. G., Habtezion, A.
2017
- **Trafficking receptor signatures define blood plasmablasts responding to tissue-specific immune challenge.** *JCI insight*
Seong, Y., Lazarus, N. H., Sutherland, L., Habtezion, A., Abramson, T., He, X., Greenberg, H. B., Butcher, E. C.
2017; 2 (6)
- **Age-dependent shift in macrophage polarisation causes inflammation-mediated degeneration of enteric nervous system.** *Gut*
Becker, L., Nguyen, L., Gill, J., Kulkarni, S., Pasricha, P. J., Habtezion, A.
2017
- **Regulatory T Cells And Sexual Dimorphism In Pulmonary Hypertension**
Tamosiuniene, R., Mesange, P., Manouvakhova, O., Saito, T., Qian, J., Sanyal, M., Lin, Y., Nguyen, L., Luria, A., Tu, A., Sante, J., Rabinovitch, M., Voelkel, et al
AMER THORACIC SOC.2017
- **Type 3c (pancreatogenic) diabetes mellitus secondary to chronic pancreatitis and pancreatic cancer.** *The lancet. Gastroenterology & hepatology*
Hart, P. A., Bellin, M. D., Andersen, D. K., Bradley, D., Cruz-Monserrate, Z., Forsmark, C. E., Goodarzi, M. O., Habtezion, A., Korc, M., Kudva, Y. C., Pandol, S. J., Yadav, D., Chari, et al
2016; 1 (3): 226-237
- **Aryl Hydrocarbon Receptor Ligands in Cigarette Smoke Induce Production of Interleukin-22 to Promote Pancreatic Fibrosis in Models of Chronic Pancreatitis.** *Gastroenterology*
Xue, J., Zhao, Q., Sharma, V., Nguyen, L. P., Lee, Y. N., Pham, K. L., Edderkaoui, M., Pandol, S. J., Park, W., Habtezion, A.
2016

- **Aryl Hydrocarbon Receptor Ligands in Cigarette Smoke Induce Production of Interleukin-22 to Promote Pancreatic Fibrosis in Models of Chronic Pancreatitis.** *Gastroenterology*
Xue, J., Zhao, Q., Sharma, V., Nguyen, L. P., Lee, Y. N., Pham, K. L., Edderkaoui, M., Pandol, S. J., Park, W., Habtezion, A.
2016
- **Macrophages and pancreatic ductal adenocarcinoma.** *Cancer letters*
Habtezion, A., Edderkaoui, M., Pandol, S. J.
2016; 381 (1): 211-216
- **Reactive Oxygen Species Imaging in a Mouse Model of Inflammatory Bowel Disease** *MOLECULAR IMAGING AND BIOLOGY*
Bronsart, L., Linh Nguyen, L., Habtezion, A., Contag, C.
2016; 18 (4): 473-478
- **HDAC3 mediates smoking-induced pancreatic cancer** *ONCOTARGET*
Edderkaoui, M., Xu, S., Chheda, C., Morvaridi, S., Hu, R. W., Grippo, P. J., Mascarinas, E., Principe, D. R., Knudsen, B., Xue, J., Habtezion, A., Uyeminami, D., Pinkerton, et al
2016; 7 (7): 7747-7760
- **Leukocyte Trafficking to the Small Intestine and Colon.** *Gastroenterology*
Habtezion, A., Nguyen, L. P., Hadeiba, H., Butcher, E. C.
2016; 150 (2): 340-354
- **Absence of keratin 8 or 18 promotes antimitochondrial autoantibody formation in aging male mice** *FASEB JOURNAL*
Toivola, D. M., Habtezion, A., Misiorek, J. O., Zhang, L., Nystrom, J. H., Sharpe, O., Robinson, W. H., Kwan, R., Omary, M. B.
2015; 29 (12): 5081-5089
- **Inflammation in acute and chronic pancreatitis.** *Current opinion in gastroenterology*
Habtezion, A.
2015; 31 (5): 395-399
- **A Thermo-Sensitive Delivery Platform for Topical Administration of Inflammatory Bowel Disease Therapies.** *Gastroenterology*
Sinha, S. R., Nguyen, L. P., Inayathullah, M., Malkovskiy, A., Habte, F., Rajadas, J., Habtezion, A.
2015; 149 (1): 52-55 e2
- **Keratin 8 absence down-regulates colonocyte HMGCS2 and modulates colonic ketogenesis and energy metabolism** *MOLECULAR BIOLOGY OF THE CELL*
Helenius, T. O., Misiorek, J. O., Nystrom, J. H., Fortelius, L. E., Habtezion, A., Liao, J., Asghar, M. N., Zhang, H., Azhar, S., Omary, M. B., Toivola, D. M.
2015; 26 (12): 2298-2310
- **Alternatively activated macrophages promote pancreatic fibrosis in chronic pancreatitis** *NATURE COMMUNICATIONS*
Xue, J., Sharma, V., Hsieh, M. H., Chawla, A., Murali, R., Pandol, S. J., Habtezion, A.
2015; 6
- **Protective role of hemoxygenase-1 in gastrointestinal diseases.** *Cellular and molecular life sciences*
Chang, M., Xue, J., Sharma, V., Habtezion, A.
2015; 72 (6): 1161-1173
- **Role and species-specific expression of colon T cell homing receptor GPR15 in colitis.** *Nature immunology*
Nguyen, L. P., Pan, J., Dinh, T. T., Hadeiba, H., O'Hara, E., Ebtikar, A., Hertweck, A., Gökmen, M. R., Lord, G. M., Jenner, R. G., Butcher, E. C., Habtezion, A.
2015; 16 (2): 207-213
- **Detection of intestinal cancer by local, topical application of a quenched fluorescence probe for cysteine cathepsins.** *Chemistry & biology*
Segal, E., Prestwood, T. R., van der Linden, W. A., Carmi, Y., Bhattacharya, N., Withana, N., Verdoes, M., Habtezion, A., Engleman, E. G., Bogoy, M.
2015; 22 (1): 148-158
- **Alternatively activated macrophages promote pancreatic fibrosis in chronic pancreatitis.** *Nature communications*
Xue, J., Sharma, V., Hsieh, M. H., Chawla, A., Murali, R., Pandol, S. J., Habtezion, A.
2015; 6: 7158-?
- **Immunodeficiency Mediate The Gender Dimorphism In Pulmonary Hypertension**
Tamosiuniene, R., Nguyen, L. P., Saito, T., Luria, A., Sante, J., Sung, Y., Rabinovitch, M., Habtezion, A., Nicolls, M. R.

AMER THORACIC SOC.2015

- **Pharmacologic therapy for acute pancreatitis** *WORLD JOURNAL OF GASTROENTEROLOGY*
Kambhampati, S., Park, W., Habtezion, A.
2014; 20 (45): 16868-16880
- **Combination of HDAC1 and GSK-3 beta Inhibition as a Treatment Strategy for Pancreatic Cancer**
Edderkaoui, M., Chheda, C., Xu, S., Principe, D., Grippo, P., Benhaddou, H., Bourhim, M., Habtezion, A., Dale, Y., Pinkerton, K., Pandol, S.
LIPPINCOTT WILLIAMS & WILKINS.2014: 1355
- **Targeting Macrophage IL-4R alpha Signaling: a Novel Immune Therapy for Chronic Pancreatitis**
Xue, J., Sharma, V., Murali, R., Pandol, S. J., Habtezion, A.
LIPPINCOTT WILLIAMS & WILKINS.2014: 1424
- **Alcoholic chronic pancreatitis increases tissue transformed macrophages (M2) which promote pancreatic cancer lesions in a Kras mouse model**
Edderkaoui, M., Grippo, P., Benhaddou, H., Ouhaddi, Y., Tsukamoto, H., Swartwood, S., Knudsen, B., Goodridge, H. S., Habtezion, A., Go, V., Pandol, S. J.
AMER ASSOC CANCER RESEARCH.2014
- **Immune cells and immune-based therapy in pancreatitis.** *Immunologic research*
Xue, J., Sharma, V., Habtezion, A.
2014; 58 (2-3): 378-386
- **Carbon monoxide-based therapy ameliorates acute pancreatitis via TLR4 inhibition** *JOURNAL OF CLINICAL INVESTIGATION*
Xue, J., Habtezion, A.
2014; 124 (1): 437-447
- **Programmed Death 1 (pd1)-Dependent Regulatory T Cell (treg) Protection In The Development Of Pulmonary Hypertension (ph)**
Tamosiuniene, R., Lin, Y., Sung, Y., Oderup, C., Nguyen, L., Habtezion, A., Nicolls, M. R.
AMER THORACIC SOC.2014
- **Alternative Activated Macrophages Activate Pancreatic Stellate Cells and Promote Chronic Pancreatitis**
Xue, J., Habtezion, A.
LIPPINCOTT WILLIAMS & WILKINS.2013: 1389
- **Retinoic acid regulates the development of a gut-homing precursor for intestinal dendritic cells.** *Mucosal immunology*
Zeng, R., Oderup, C., Yuan, R., Lee, M., Habtezion, A., Hadeiba, H., BUTCHER, E. C.
2013; 6 (4): 847-856
- **Role of immune cells and immune-based therapies in pancreatitis and pancreatic ductal adenocarcinoma.** *Gastroenterology*
Zheng, L., Xue, J., Jaffee, E. M., Habtezion, A.
2013; 144 (6): 1230-1240
- **ROLE AND REGULATION OF IL-22 IN THE TREATMENT OF EXPERIMENTAL ACUTE PANCREATITIS** *36th Annual Scientific Meeting of the Research-Society-on-Alcoholism*
Xue, J., Nguyen, D., Habtezion, A.
WILEY-BLACKWELL.2013: 303A-303A
- **Inhibiting Heme Oxygenase-1 Abrogates The Protective Effect Of Regulatory T Cells In Pulmonary Hypertension**
Tamosiuniene, R., Nguyen, L. P., Sung, Y., Lin, Y., Khan, A. M., Sante, J., Habtezion, A., Nicolls, M. R.
AMER THORACIC SOC.2013
- **Aryl Hydrocarbon Receptor Regulates Pancreatic IL-22 Production and Protects Mice From Acute Pancreatitis** *GASTROENTEROLOGY*
Xue, J., Nguyen, D. T., Habtezion, A.
2012; 143 (6): 1670-1680
- **Aryl Hydrocarbon Receptor Regulates Pancreatic IL-22 and Protects Against Acute Pancreatitis in Mice**
Xue, J., Nguyen, D. T., Habtezion, A.
LIPPINCOTT WILLIAMS & WILKINS.2012: 1414-14
- **Plasmacytoid Dendritic Cells Transport Peripheral Antigens to the Thymus to Promote Central Tolerance** *IMMUNITY*
Hadeiba, H., Lahl, K., Edalati, A., Oderup, C., Habtezion, A., Pachynski, R., Nguyen, L., Ghodsi, A., Adler, S., Butcher, E. C.

2012; 36 (3): 438-450

- **Therapeutic Role of Carbon Monoxide in Experimental Acute Pancreatitis**
Xue, J., Habtezion, A.
LIPPINCOTT WILLIAMS & WILKINS.2011: 1363-63
- **Panhematin provides a therapeutic benefit in experimental pancreatitis** *GUT*
Habtezion, A., Kwan, R., Akhtar, E., Wanaski, S. P., Collins, S. D., Wong, R. J., Stevenson, D. K., Butcher, E. C., Omary, M. B.
2011; 60 (5): 671-679
- **Absence of keratin 8 confers a paradoxical microflora-dependent resistance to apoptosis in the colon** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Habtezion, A., Toivola, D. M., Asghar, M. N., Kronmal, G. S., Brooks, J. D., Butcher, E. C., Omary, M. B.
2011; 108 (4): 1445-1450
- **Heme oxygenase-1 is induced in peripheral blood mononuclear cells of patients with acute pancreatitis: a potential therapeutic target** *AMERICAN JOURNAL OF PHYSIOLOGY-GASTROINTESTINAL AND LIVER PHYSIOLOGY*
Habtezion, A., Kwan, R., Yang, A. L., Morgan, M. E., Akhtar, E., Wanaski, S. P., Collins, S. D., Butcher, E. C., Kamal, A., Omary, M. B.
2011; 300 (1): G12-G20
- **Diabetic Gastroparesis: An Emerging Role for Macrophages and Heme Oxygenase-1** *GASTROENTEROLOGY*
Habtezion, A., Wiley, J. W.
2010; 138 (7): 2219-2223
- **Intermediate filaments take the heat as stress proteins** *TRENDS IN CELL BIOLOGY*
Toivola, D. M., Strnad, P., Habtezion, A., Omary, M. B.
2010; 20 (2): 79-91
- **Keratins modulate the shape and function of hepatocyte mitochondria: a mechanism for protection from apoptosis** *JOURNAL OF CELL SCIENCE*
Tao, G., Looi, K. S., Toivola, D. M., Strnad, P., Zhou, Q., Liao, J., Wei, Y., Habtezion, A., Omary, M. B.
2009; 122 (21): 3851-3855
- **CCR9 expression defines tolerogenic plasmacytoid dendritic cells able to suppress acute graft-versus-host disease** *NATURE IMMUNOLOGY*
Hadeiba, H., Sato, T., Habtezion, A., Oderup, C., Pan, J., Butcher, E. C.
2008; 9 (11): 1253-1260
- **DCs metabolize sunlight-induced vitamin D3 to 'program' T cell attraction to the epidermal chemokine CCL27** *NATURE IMMUNOLOGY*
Sigmundsdottir, H., Pan, J., Debes, G. F., Alt, C., Habtezion, A., Soler, D., Butcher, E. C.
2007; 8 (3): 285-293
- **Short-term homing assay reveals a critical role for lymphocyte function-associated antigen-1 in the hepatic recruitment of lymphocytes in graft-versus-host disease** *JOURNAL OF HEPATOLOGY*
Sato, T., Habtezion, A., Beilhack, A., Schulz, S., Butcher, E., Thorlaciuc, H.
2006; 44 (6): 1132-1140
- **CD8(+) recent thymic emigrants home to and efficiently repopulate the small intestine epithelium** *NATURE IMMUNOLOGY*
Staton, T. L., Habtezion, A., Winslow, M. M., Sato, T., Love, P. E., Butcher, E. C.
2006; 7 (5): 482-488
- **Hemin-activated macrophages home to the pancreas and protect from acute pancreatitis via heme oxygenase-1 induction** *JOURNAL OF CLINICAL INVESTIGATION*
Nakamichi, I., Habtezion, A., Zhong, B. H., Contag, C. H., BUTCHER, E. C., Omary, M. B.
2005; 115 (11): 3007-3014
- **Cellular integrity plus: organelle-related and protein-targeting functions of intermediate filaments** *TRENDS IN CELL BIOLOGY*
Toivola, D. M., Tao, G. Z., Habtezion, A., Liao, J., Omary, M. B.
2005; 15 (11): 608-617
- **Keratin-8-deficient mice develop chronic spontaneous Th2 colitis amenable to antibiotic treatment** *JOURNAL OF CELL SCIENCE*
Habtezion, A., Toivola, D. M., BUTCHER, E. C., Omary, M. B.
2005; 118 (9): 1971-1980

- **Risk factors for low bone density in Crohn's disease** *INFLAMMATORY BOWEL DISEASES*
Habtezion, A., Silverberg, M. S., Parkes, R., Mikolainis, S., Steinhart, A. H.
2002; 8 (2): 87-92