BIOGRAPHICAL SKETCH

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NAME: Behari, Jaideep

eRA COMMONS USER NAME (credential, e.g., agency login): jbehari

POSITION TITLE: Associate Professor of Medicine

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
University of Rajasthan, India	MBBS	02/1993	Medicine
University of Georgia, Athens, GA	PhD	08/1998	Genetics
Harvard Medical School/Massachusetts General Hospital, Boston, MA	Postdoctoral	06/2000	Medicine/ Infectious Diseases
University of Massachusetts Medical School, Worcester, MA	Residency	06/2002	Internal Medicine
University of Pittsburgh, Pittsburgh, PA	Residency	6/2003	Internal Medicine
University of Pittsburgh, Pittsburgh, PA	Fellowship	06/2006	Gastroenterology

A. Personal Statement

I am an Associate Professor of Medicine in the Division of Gastroenterology, Hepatology and Nutrition at the University of Pittsburgh School of Medicine, and an attending physician at UPMC Presbyterian Hospital and the Thomas E. Starzl Transplantation Institute at UPMC. I am board-certified in Internal Medicine, Gastroenterology, Transplant Hepatology, and Obesity Medicine. My current clinical research is focused on the pathophysiologic interactions between nonalcoholic fatty liver disease (NAFLD) and obesity, and my primary clinical interest is management of patients with coexisitng NAFLD and obesity. I also have a PhD in Genetics and extensive research experience in basic science. I have been a PI on an NIAAA K08 grant (5K08 HL AA017622) and additional foundation/pilot grants. I have over 35 publications and my research has been published in some of the top journals in my field, including *Hepatology*, *Journal of Hepatology* and *American Journal of Pathology*. I am currently a co-investigator on two NIH-funded studies. I am the site PI for several Phase 2 and 3 NAFLD clinical trials and investigator-initiated studies. Additionally, as Co-Director of Liver Translational Research of the Liver Pancreas Institute at the University of Pittsburgh, I also participate in collaborative research with other investigators in other aspects of hepatology. In 2015, I established the UPMC Fatty Liver, Obesity, and Wellness (UPMC FLOW®) Clinic, a multidisciplinary clinic catering to the complex needs of patients with advanced NAFLD and associated comorbid problems by integrating obesity and diabetes treatments in NAFLD care using a combination of dietary, lifestyle and pharmacological interventions as well as cutting edge clinical trials.

1. Rachakonda V, Wills R, DeLany JP, Kershaw EE, **Behari J**. Differential Impact of Weight Loss on Nonalcoholic Fatty Liver Resolution in a North American Cohort with Obesity.
Obesity (Silver Spring). 2017 Aug;25(8):1360-1368. PMID: 28605159
2. Rachakonda V, Argemi J, Borhani AA, Bataller R, Tevar A, **Behari J**. Reduced Serum Sphingolipids Constitute a Molecular Signature of Malnutrition in Hospitalized Patients with Decompensated Cirrhosis. Clin

Transl Gastroenterol. 2019 Mar;10(3):e00013. PMID: 30908309
3. Furlan A, Tublin ME, Yu L, Chopra KB, Lippello A, **Behari J**. Comparison of 2D-Shear Wave Elastography (SWE), Transient Elastography (TE) and Magnetic Resonance Elastography (MRE) for the Diagnosis of Fibrosis in Patients with Non-Alcoholic Fatty Liver Disease. Am J Roentgenol. 2019 (In press).
4. Rachakonda VP, DeLany JP, Kershaw EE, **Behari J**. Impact of Hepatic Steatosis on Resting Metabolic Rate and Metabolic Adaptation in Response to Intentional Weight Loss. Hepatol Commun. 2019 (In press).

B. Positions and Honors

Positions and Employment

7/2006 – 2/2015	Assistant Professor of Medicine Division of Gastroenterology, Hepatology, and Nutrition, University of Pittsburgh
7/2010-	Co-Director, Liver Translational Research Program, Liver Pancreas Institute, University of Pittsburgh, Pittsburgh, PA
3/2015-	Associate Professor of Medicine Division of Gastroenterology, Hepatology, and Nutrition, University of Pittsburgh

Other Experience and Professional Memberships

2005-	Member, American Association for the Study of Liver Diseases
2005-	Member, American Gastroenterological Association
2012	Grant reviewer, Hong Kong Research Grants Council
2013	Ad hoc grant reviewer, NIH Small Business Innovation Research-Digestive Sciences Study section
2018-	Member, The Obesity Society

Honors

1984-1993	National Talent Search Scholarship (National Council for Educational Research and Training, India
1988-1992	Honors in Anatomy, Physiology, Forensic Medicine, Surgery, and Ophthalmology, S.M.S. Medical College, India
1988	P.M. Nahta Memorial Gold Medal for the highest score in Physiology, S.M.S. Medical College
1990	Sheir Kashmir Mohammed Abdullah Gold Medal for placing second in Second MBBS, S.M.S. Medical College
1992	Sri Bhagwan Singh Rajput Memorial Gold Medal for placing second in the graduating class, S.M.S. Medical College
1994-1997	The University of Georgia Graduate School University-wide Fellowship
2003	ABIM Board certification, Internal Medicine (Recertified 2013)
2004-2006	Ruth L. Kirschstein National Research Service Award (NRSA)
2004	Awardee, Careers in Academic Gastroenterology Conference, Medical College of Wisconsin, Milwaukee, WI
2005	Clinical Research Award, University of Pittsburgh Department of Pathology Annual Retreat
2005	Poster of Distinction, 56th Annual Meeting of the American Association for the Study of Liver Disease, San Francisco, CA, November 2005
2006	ABIM Board certification, Gastroenterology (Recertified 2016)
2010	ABIM Board certification, Transplant Hepatology
2018	Diplomate, American Board of Obesity Medicine
2018	Poster of Distinction, American Association for the Study of Liver Diseases, The Liver Meeting

C. Contribution to Science

1. Clinical and Translational studies on nonalcoholic and alcoholic fatty liver disease. Alcoholic liver disease and nonalcoholic fatty liver disease are important public health problems. My recent research efforts have focused on patient-centered studies using clinical phenotyping and systems biology approaches to risk stratify and clinically and metabolically phenotype patients with nonalcoholic and alcoholic steatohepatitis.

These proof of concept studies have demonstrated the utility of these approaches and identified potential biomarkers of disease outcomes and pathways involved in the pathogenesis of these disorders.
1a. Rachakonda V, Gabbert C, Raina A, Li H, Malik S, DeLany JP, **Behari J**. Stratification of Risk of Death in Severe Acute Alcoholic Hepatitis Using a Panel of Adipokines and Cytokines. Alcohol Clin Exp Res. 2014 Nov;38(11):2712-21. PMID: 25421508
1b. Dudekula A, Rachakonda V, Shaik B, **Behari J**. Weight Loss in Nonalcoholic Fatty Liver Disease Patients in an Ambulatory Care Setting is Largely Unsuccessful but Correlates with Frequency of Clinic Visits. PLoS One. 2014 Nov 6;9(11):e111808. PMID: 25375228
1c. Rachakonda V, Gabbert C, Rain A, Bell LN, Cooper S, Malik S, **Behari J**. Serum metabolomic profiling in acute alcoholic hepatitis identifies multiple dysregulated pathways. PLoS One. 2014 Dec 2;9(12):e113860. PMID
1d. Rachakonda V, Borhani AA, Dunn MA, Andrzejewski M, Martin K, **Behari J**. Serum leptin is a biomarker of malnutrition in decompensated cirrhosis. PLoS One. 2016 Sep 1;11(9):e0159142. PMID 27583675
1e. Cannella R, Borhani AA, Tublin M, **Behari J**, Furlan A. Diagnostic value of MR-based texture analysis for the assessment of hepatic fibrosis in patients with nonalcoholic fatty liver disease (NAFLD). Abdom Radiol (NY). 2019 May;44(5):1816-1824. PMID: 30788556

2. Wnt pathway in the pathogenesis of fatty liver disease. During my fellowship training and as a junior faculty member in the Division of Gastroenterology at the University of Pittsburgh, I focused on understanding the role of the Wnt/b-catenin pathway in liver biology. Specifically, my paper demonstrated that b-catenin was critical for protection against diet-induced steatohepatitis by using hepatocyte-specific b-catenin knockout mice. Research from my laboratory also established a role of b-catenin in bile acid homeostasis and bile canalicular morphogenesis. Our studies also demonstrated a role of the canonical Wnt pathway in the pathogenesis of alcoholic steatohepatitis. Recently, we also showed that liver-specific disruption or overexpression of b-catenin causes significant changes in susceptibility of diet-induced obesity and inulin resistance. This paper established a link between liver metabolic zonation and systemic energy balance. These papers were published in the some of the top journal in the field of gastroenterology/hepatology and pathology.
2a. Behari J, Yeh TH, Krauland L, Otruba W, Cieply B, Hauth B, Apte U, Wu T, Evans R, Monga SP. Liver-specific beta-catenin knockout mice exhibit defective bile acid and cholesterol homeostasis and increased susceptibility to diet-induced steatohepatitis. *American Journal of Pathology*, 2010; 176(2):744-53.
2b. Yeh, TH, Krauland, L, Singh, V, Zou, B, Devaraj, P, Stolz, DB, Franks, J, Monga, SPS, Sasatomi, E, and **Behari, J**. Liver-Specific β-Catenin Knockout Mice Have Bile Canalicular Abnormalities, Bile Secretory Defect and Intrahepatic Cholestasis. *Hepatology*, 2010; 52(4):1410-19.
2c. Liu S, Yeh TH, Singh VP, Shiva S, Krauland L, Li H, Zhang P, Kharbanda K, Ritov V, Monga SP, Scott DK, Eagon PK, **Behari J.** β-catenin is essential for ethanol metabolism and protection against alcohol-mediated liver steatosis in mice. *Hepatology*, 2012; 55(3):931-40.
2d. Behari J, Li H, Liu S, Stefanovic-Racic M, Alonso, L, O'Donnell CP, Shiva S, Singamsetty S, Watanabe Y, Singh VP, Liu Q. β-Catenin Links Hepatic Metabolic Zonation with Lipid Metabolism and Diet-induced Obesity in Mice. Am J Pathol. 2014 Dec;184(12):3284-98. PMID: 25300578
2e. Behari J, Sylvester KG. Role of the Wnt/β-catenin pathway in the pathogenesis of alcoholic liver disease. Curr Mol Pharmacol. 2017;10(3):186-194. PMID: 26278392

3. Pathogenesis of food-borne gastrointestinal pathogens. My early research during graduate school and postdoctoral fellowship focused on the molecular mechanisms of virulence of gastrointestinal tract-associated pathogens. I studied sporulation in Bacillus species, and mechanisms of virulence gene regulation by nutrient signals in Listeria monocytogenes. I also designed a genetic screen using that led to the discovery of a gene, pepA, which mediates pH regulation of virulence genes in the important gastrointestinal pathogen Vibrio cholerae.
3a. Barak, I, **Behari, J**, Olmedo, G, Guzman, P, Brown, DP, Castro, E, Walker, D, Westpheling, J, Youngman, P. Structure and function of the Bacillus SpoIIE protein and its localization to sites of sporulation septum assembly. Mol Microbiol. 1996 Mar;19(5):1047-60. PMID: 8830262 (Cover article)
3b. Behari, J, Youngman, P. Regulation of hly expression in Listeria monocytogenes by carbon sources and pH occurs through separate mechanisms mediated by PrfA. Infect Immun. 1998 Aug;66(8):3635-42. PMID: 9673243

3c. Behari, J, Youngman, P. A homolog of CcpA mediates catabolite control in Listeria monocytogenes but not carbon source regulation of virulence genes. J Bacteriol. 1998 Dec;180(23):6316-24. PMID: 9829942
3d. Behari, J, Stagon, L, Calderwood, SB. pepA, a gene mediating pH regulation of virulence genes in Vibrio cholerae. J Bacteriol. 2001 Jan;183(1):178-88. PMID: 11114915
3e. Cvitkovitch DG, Gutierrez JA**, Behari J,** Youngman PJ, Wetz JE, Crowley PJ, Hillman JD, Brady LJ, Bleiweis AS. Tn917-lac mutagenesis of Streptococcus mutans to identify environmentally regulated genes. FEMS Microbiol Lett. 2000 Jan 1;182(1):149-54. PMID: 10612747

4. Collaborative studies on outcomes in gastrointestinal disorders. As a hepatologist with a strong clinical interest in the management of patients with fatty liver disease and other chronic gastrointestinal and hepatic disorers, I have also actively collaborated with other researchers in studies on fatty liver disease, acute pancreatitis, and liver cirrhosis. These clinically focused studies have resulted in papers with immediate clinical relevance and impact on practice. For these studies, we have used our extensive clinical databases and long experience with electronic medical records to rapidly identify populations of interest for outcomes studies.
4a. Navina, S, Acharya, C, Delany, JP, Orlichenko, LS, Baty, CJ, Shiva, SS, Durgampudi, C, Karlsson, JM, Lee, K, Bae, KT, Furlan, A, **Behari J**, Liu, S, McHale, T, Nichols, L, Papachristou, GI, Yadav, D, Singh, VP. Lipotoxicity causes multisystem organ failure and exacerbates acute pancreatitis in obesity. Sci Transl Med. 2011 Nov 2;3(107):107ra110. PMID: 22049070
4b. Reddy, SK, Chen, H-W, Steel, JL, DeMateo, DJ, Cardinal, J, **Behari, J**, Marsh, JW, Geller, DA, and Tsung, A. Outcomes after Surgical Treatment for Hepatocellular Cancer in Nonalcoholic Steatohepatitis. Hepatology. 2012 Jun;55(6):1809-19. PMID: 22183968
4c. Ganesh, S, Rogal, SS, Yadav, D, Humar, A, **Behari, J.** (2013) Risk Factors for Frequent Readmissions and Barriers to Transplantation in Patients with Cirrhosis. PLoS One. 2013;8(1):e55140. PMID: 23383085
4d. Thudi K, Yadav D, Sweeney K, **Behari J**. Physicians infrequently adhere to hepatitis vaccination guidelines for chronic liver disease. PLoS One. 2013 Jul 26;8(7):e71124. PMID: 23923056
4e. Dunn, MA, Behari, J, Rogal, SS, O'Connell, MR, Furlan, A, Aghayev, A, Gumus, S, Saul, MI, and Bae, KT. Hepatic Steatosis In Diabetic Patients Does Not Predict Adverse Liver-Related or Cardiovascular Outcomes. Liver Int. 2013 Nov;33(10):1575-82. PMID: 23944954

Complete List of Published Works in MyBibliography:
https://www.ncbi.nlm.nih.gov/myncbi/1F3EwyegrHO/bibliography/public/

D. Additional Information: Research Support and/or Scholastic Performance
Ongoing research support

5U01AA026978 Bataller (PI) 08/01/18-6/30/2023
Alcoholic hepatitis clinical and translational network Late-Phase Clinical Trials and Observational Studies
The goal of this study is to identify novel biomarkers and treatment strategies for acute alcoholic hepatitis.
Role: Co-investigator

5R21AA025730 DiMartini (PI) 3/30/18-2/28/2020

Alcohol Bio-sensor Monitoring for Patients with Alcoholic Liver Disease
The goal of this study is to test an alcoholic biosensor device for monitoring alcohol use and promote alcohol abstinence in patients with decompensated alcoholic liver disease.
Role: Co-investigator

Pittsburgh Liver Research Center Raeman and Behari (Co-PI) 7/1/2019-6/30/2020
Pilot and Feasibility grant
(funded by P30 DK1120531)
Mechanisms underlying loss of intestinal epithelial barrier function in nonalcoholic steatohepatitis
The goal of this study is to study the immune mechanismms underlying loss of intestinal barrier function and increased intestinal permeability in nonalcoholic steatohepatitis.
Role: Co-PI

Ongoing sponsored clinical trials

Grant (Dates)	Grant Title	Role in Study	Source
747-303; Phase lll	A Phase 3, Double-Blind, Randomized, Long-Term, Placebo-Controlled, Multicenter Study Evaluating the Safety and Efficacy of Obeticholic Acid in Subjects with Nonalcoholic Steatohepatitis (REGENERATE study)	Site PI	Intercept
747-304; Phase lll	A Phase 3, Double-Blind, Randomized, Placebo-Controlled, Multicenter Study to Evaluate the Efficacy and Safety of Obeticholic Acid in Subjects with Compensated Cirrhosis due to Nonalcoholic Steatohepatitis (REVERSE Study)	Site PI	Intercept
GS-US-454-4378; Phase ll	A Phase 2, Randomized, Double-Blind, Placebo-Controlled Study Evaluating the Safety and Efficacy of Selonsertib, GS-0976, GS-9674, and Combinations in Subjects with Bridging (F3) Fibrosis or Compensated Cirrhosis (F4) due to Nonalcoholic Steatohepatitis (NASH	Site PI	Gilead
Allergan AURORA 3152-301-002; Phase III	AURORA: A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Cenicriviroc for the Treatment of Liver Fibrosis in Adult Subjects with Nonalcoholic Steatohepatitis	Site PI	Allergan
Celgene CC-90001-NASH-001; Phase II	A Phase 2, Randomized, Double-Blind, Placebo-Controlled, Multicenter, Dose-Finding Study to Evaluate the Efficacy and Safety of CC-90001 in Subjects with Non-alcoholic Steatohepatitis (NASH) and Stage 3 or Stage 4 liver fibrosis	Site PI	Celgene