CURRICULUM VITAE

Jon B. Klein, M.D., Ph.D.
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EDUCATION

1971	Benjamin Franklin High School New Orleans, Louisiana
1975	University of Texas Austin, Texas B.A., Biology (Honors)
1979	University of Texas Medical Branch Galveston, Texas M.D.
1988	University of Louisville, Louisville, Kentucky Ph.D., Microbiology and Immunology Major Professor: Gerald Sonnenfeld

Post Graduate - Medical Education:

July 1979 - June 1980	Straight Medical Internship Kansas University Medical Center Kansas City, Kansas
July 1980 - June 1981	First Year Medical Residency Kansas University Medical Center Kansas City, Kansas
July 1981 - June 1982	Second Year Medical Residency Kansas University Medical Center Kansas City, Kansas
July 1982 - July 1985	Fellowship in Nephrology University of Louisville School of Medicine Louisville, Kentucky
Aug 1983 - Oct 1986	Graduate Student University of Louisville Department of Microbiology & Immunology Louisville, Kentucky

Nov 1986 - Apr 1988	Doctoral Candidate University of Louisville Department of Microbiology & Immunology Louisville, Kentucky

ACADEMIC APPOINTMENTS

July 1984 – 1993	Consulting Nephrologist University of Louisville Organ Procurement Agency Louisville, Kentucky
July 1985 – June 1991	Assistant Professor of Medicine University of Louisville School of Medicine Louisville, Kentucky
Feb 1986 – Dec 1986	1986 Acting Director University of Louisville Histocompatibility Laboratory Louisville, Kentucky
Nov 1986 – Present	Associate in Surgery University of Louisville Department of Surgery Louisville, Kentucky
July 1991 - June, 1996	Associate Professor of Medicine University of Louisville School of Medicine Louisville, Kentucky
Sept 1991 – Present	Associate in Department of Microbiology and Immunology University of Louisville School of Medicine Louisville, Kentucky
July 1996 – Present	Professor of Medicine University of Louisville School of Medicine Louisville, Kentucky
Oct 2000 – Present	Professor of Biochemistry & Molecular Biology University of Louisville School of Medicine Louisville, Kentucky

Mar 2004 – Present	James Graham Brown Foundation Endowed Chair in Proteomics University of Louisville James Graham Brown Cancer Center Louisville, Kentucky
July 2013 – Present	Vice-Dean for Research University of Louisville School of Medicine Louisville, Kentucky

ADMINISTRATIVE RESPONSIBILITIES/OTHER POSITIONS AND EMPLOYMENT

Mar 2014 – Present	University of Louisville (LCME) Liaison Committee on Medical Education Steering Committee
July 2010 – Present	Co-Director of Research Programs Kidney Disease Program University of Louisville Louisville, Kentucky
July 2009 – Present	Member, Clinical and Translational Research Institute Implementation Committee University of Louisville Louisville, Kentucky
Mar 2003 – Present	Director, Clinical Proteomics Program University of Louisville Louisville, Kentucky
Jan 1986 – Present	Director University of Louisville Histocompatibility Laboratory Louisville, Kentucky
Oct 1999 – Present	Director University of Louisville Core Proteomics Laboratory Louisville, Kentucky
Aug 2003 – 2007	Director University of Louisville Kentucky Proteomics Training Program Louisville, Kentucky
July 1986 – March 1997	Co-Director University of Louisville Adult Transplantation Program Jewish Hospital

Aug 2013 – Present	Department of Veteran Affairs Research and Development Million Veteran Program (MVP) Site Principal Investigator

CERTIFICATION AND LICENSURE

Medical Licensure:	Kentucky State Medical License, 1982 (Lic. #22344) Texas State Medical License, 1979 (Inactive) (Lic. #F4168)
Board Certification:	American Board of Internal Medicine Diplomate, 1982 American Board of Internal Medicine (Nephrology) Diplomate, 1984

SERVICE TO THE AMERICAN SOCIETY OF NEPHROLOGY

(Summary of the past 10 years)

Annual Meeting Presentations and Session Chairs

Kidney Week 2009

- Invited Speaker in Annual Meeting Session “Biomarkers in Kidney Disease”
- Co-Moderator in Annual Meeting Session “Personalized Medicine: From Here to Applications in Nephrology”

Kidney Week 2011

- Invited speaker in Annual Meeting session “Kidney Disease in Type 2 Diabetes: New Insights"
- Invited speaker in Annual Meeting session “Microparticles in Renal Disease"

Kidney Week 2013

- Co-Chair and Organizer of Annual Meeting Early Program “Novel Biomarkers of Kidney Disease: False Dawn or New Horizon?”

Kidney Week 2015

- Invited speaker in Annual Meeting session “From Systems Biology to Personalized Medicine"

Kidney Week 2016

- Invited speaker in Annual Meeting session “Biomarker Identification and Validation in the Management of CKD”
- Invited speaker in Annual Meeting session “Golden Nuggets: Role of Exosomes and Microvesicles in Kidney Diseases"

Kidney Week 2017

- Co-Moderator of Annual Meeting session "Tissue Imaging Mass Spectrometry in Nephrology”

Kidney Week 2018

- Co-Moderator of Annual Meeting session “Extracellular Vesicles in Kidney Diseases: From Trash to Treasure"

Kidney week 2020

- Co-Chair Program/Education Committee for annual nephrology meeting. Transferred the meeting to a virtual platform due to the pandemic. Over 11,000 people registered from around the world.

Committee Membership
Annual Meeting Program Committee 2013
Annual Meeting Program Committee 2019
Continuous Professional Development Committee 2019-2020
Annual Meeting Education (Program) Committee Co-Chair 2020

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

Memberships:	Greater Louisville Medical Society
	Kentucky Medical Association
	International Society of Nephrology
	American Society of Nephrology
	American Association of Immunologists
	Human Proteome Organization

HONORS AND AWARDS

1990	President's Initiative for Research Young Investigator Award University of Louisville
1990	Department of Medicine Chairman's Research Award
2005	Genomic Technology All-Star "One of the 50 most influential people in genomic technology" Voted by readers of Genomic Technology magazine
July 2005	CARITAS Foundation Award of Excellence in Research
Nov 2005	Business First Excellence in Research

COMMITTEE ASSIGNMENTS AND ADMINISTRATIVE SERVICES
Peer Review:
National:

Sept 18-20, 1985	Participant, workshop on pathogenesis and pathophysiology of myocarditis. The National Heart, Lung and Blood Institute
Jan 9-10, 1984	Member, Surgery and Bioengineering study section (AHR), National Institutes of Health
Mar 25, 1988	Member, Ad Hoc Cardiovascular Study Section, National Institutes of Health
1993 – 2002	Reviewer (Ad Hoc) Veterans Administration Merit Review Immunology Study Section
2002-2006	Member (Permanent), Veterans Administration Merit Review Immunology/Dermatology Study Section
2003-2006	Chair, Immunology B Study Section, Veterans Administration Merit Review Board
Oct 2002	Member (Ad Hoc) NIDDK General Medicine B Study Section
July 2002-July 2003	Member, NIDDK General Medicine B Study Section
July 2005	Member, NIDDK Special Emphasis Panel Review Committee: George M. O'Brien Kidney Disease Core Center
July 2005	Member, NIH-PBKD Small Business Innovation Research (SBIR) Review Panel
July 2003-June 2007	Permanent Member, NIH-PBKD Study Section, Ad Hoc Reviewer, NIDDK Small Business Innovative Research grants Program
Mar 2007	Member, NIDDK Study Section, George M. O'Brien Kidney Research Core Centers (P30)
Mar 2009	Reviewer, Nephcure Foundation National Grants in Aid.
Mar 2009	Member, NIDDK Special Emphasis Panel Study Section,
July 2007 – Present	Ad Hoc reviewer, NIH-PBKD Study Section
Jan 2013	Co-Chair 2013 American Association of Clinical Chemistry (AACC) Beckman Conference-2013
Dec 2014 – Present	Member, External Expert Panel, NIDDK ASsessment, Serial Evaluation, and Subsequent Sequelae in Acute Kidney Injury (ASSESS-AKI) study

Local and University Peer Review:

Jan 1991 – 1997	Member, Grant Review Committee University of Louisville President's Research Initiative Fund
1992 – 1995	Member, Louisville VAMC Research Committee
1994-1995	Chairman, Louisville VAMC Research Committee
2010	Member, U of L Clinical and Translational Grant Review Committee

University, Regional, and National Committee Service:

May 2003	Member, NHLBI "Working Group on Clinical Proteomics"
Oct 1995 – 1997	Member, Kidney-Pancreas Committee, American Society of Transplant Physicians
1989-1992	Member, National Kidney Foundation Public Policy Committee
1989-1992	Member, American Society of Nephrology Public Policy Committee
1993 – 1996	Member, Program Committee of the American Society of Transplant Physicians
1994 – 1996	Councilor, Mid-West American Federation for Clinical Research
July 1986-1995	Member, Advisory Board, Kentucky Organ Donor Association (Statewide Organ Procurement Agency)
July 1986 – 1989	Member, Steering Committee of the Louisville Institute for Heart and Lung Diseases

1994 – 2000	Member, Scientific Advisory Committee, National Institutes of Health (S10 RR016636-01) "Hybrid Quadrupole-Time of Flight Mass Spectrometer", Member Internal Advisory Board
January 2010-2013	Member, Internal Advisory Board, The Center for Environmental Genomics and Integrative Biology
2009-Present	Member, Clinical and Translational Science Institute (CTSA) Implementation Committee
2013-Present	Member, 21st Century Plan research committee
2013-Present	Member, School of Medicine Research Strategic Planning Committee
2014-Present	Health Sciences Center Space Planning Research Sub-Committee
2014-Present	Member LCME Steering Committee
2014	Chair, Associate Dean for Graduate and Post-doctoral Studies Search Committee
2019	Co-chair, University Strategic Plan "Investment" Committee
University Service:	
2016	Member, Brown Cancer Center Director Search Committee
2010	Member of the Pathology Chair Search Committee
2000 – 2003	Member of the Biochemistry Chair Search Committee
1999-2002	Research Advisory Committee to the Vice-President for Research
1999 – 2002	Member, Medical School Promotion and Tenure Committee
1994 – 1995	Dean's Committee for review of the status of Ph.D. faculty in clinical departments
Jan 1995-1996	Member, Graduate Council, University of Louisville
Community Service:	
1992-1993	Board Member, University of Louisville Hillel Foundation
1993-1995	Board Member, Kentucky Arts and Crafts Foundation
2004	Worked with State Representatives Bob DeWeese and Mary Lou Marzian to create the KY Diabetes Research Board and Diabetes Research Trust Fund
Nov 2005-2008	Education Advisory Board: Louisville Science Center of Kentucky
2007-2009	Founder, Louisville Science Café at the Louisville Science Center
2010	Member, Fischer for Mayor Leadership Policy Team for Entrepreneurship and New Technology
2012-2016	Co-Chair Partnership Together Louisville-Israel Peoplehood Platform
2016 – Present	Member Jewish Federation of Louisville board of directors
2016 – Present	Member, Jewish Heritage Fund "Jewish Life" grants committee

TEACHING

Trainees:

1. Robert Molestina, Ph.D., 1998-2000 Supported by the Core Proteomics Laboratory Fund.
2. Visith Thongboonkerd, M.D., 2001-2003, Supported by an International Society of Nephrology Fellowship Grant and the National Kidney Foundation of Thailand. Currently, Professor of Medicine, Faculty of Medicine, Mahidol University, Bangkok, Thailand
3. Michelle Barati, Ph.D. Currently an Assistant Professor at the University of Louisville
4. Jennifer Hollon, M.D. 2003. Supported by University of Louisville Kidney Disease Program
5. James Gould, B.S. 2003-July 2007. Doctorate in Biochemistry and Molecular Biology. Currently director of the Office for Post-doctoral Fellows at Harvard Medical School. Supported by a fellowship from the University of Louisville Center for Genetics and Molecular Medicine

K-Award Mentees:

1. Tongalp Tezel, KO8 2003-2007, Currently, Professor, Columbia University Department of Ophthalmology and Visual Sciences, University of Louisville
2. David Powell, KO1 2007-2010, Currently Associate Professor of Medicine, Nephrology Division, University of Louisville
3. Michelle Barati, KO1 2009-2014, Currently Assistant Professor of Medicine, Nephrology Division, University of Louisville
4. Dawn Caster, K08 2015-2021, Currently Assistant Professor of Medicine, Nephrology Division, University of Louisville

CLINICAL ACTIVITIES

Scheduled In-Patient Responsibilities: *(2002-Present*) – Four months each year of renal consultative service at the Louisville Veterans Affairs Medical Center, Baptist Hospital East, Norton Suburban Hospital or Norton Audubon Hospital. For the past five years I have served exclusively at the Robley Rex VA Medical Center

Scheduled Outpatient Responsibilities: *(2002-2015)* – Weekly combined Renal and Primary Care Clinic at the Louisville Veterans Affairs Medical Center (2002-2005). Weekly Renal Clinic at the Louisville Veterans Affairs Medical Center (2005-Present). Kidney Transplant clinic at the U of L Kidney Disease Program (Weekly in 2002, monthly 2003-2005 and bimonthly 2005 to 2013,

GRANTS AND CONTRACTS

Funded Research: Completed Peer Reviewed:

Federal – NIH:

National Institutes of Health (Sub-contract), 1988-1989, $40,800, "Use of monoclonal antibodies to treat acute allograft rejection," Co-Investigator.

National Institutes of Health: (R21 PA-99-131) July 2001-June 2004, $432,000, "Cardioprotective effects of ethanol" Co-Investigator.

National Institutes of Health (R21DK629086-01) $244,000 "Proteomic Analysis of Diabetic Nephropathy" Principal Investigator 2002-2004.

National Institutes of Health (R21DK629086-01) “Gene Expression of Persistent Chlamydia Pneumoniae”. Co-Investigator 12/01/2001 – 11/30/2004.

Veterans Administration Merit Review Grant, Oct 1, 2001-Sept 30, 2004. $325,000 “Analysis of PTH and dopamine Receptor Signaling in Proximal Tubules”. Co-Investigator.

National Institutes of Health R21 "Proteomic Analysis of Neutrophil Granules". Consultant.

National Institutes of Health: (R01 HL66358-01) Oct. 2000 – Sept. 2004. $1,008,000.00 "Proteomic Analysis of Hippocampal Hypoxic Vulnerability”. Principal Investigator.

National Institutes of Health: R21HD05056401 – December, 2006 – November 2008. $346,500 “Urinary Proteomics in Aminoglycoside Treated Newborns”.

National Institutes of Health: 3P20RR018733-07S1, 2003-2007, Molecular Targets COBRE, Co-Investigator of Proteomics Core for James Graham Brown Cancer Center.

National Institutes of Health *(K01 - DK076743)* Mentored Clinical Scientists Award $405,000. PI: David W. Powell, Ph.D. Mentor: Jon B. Klein, M.D., Ph.D.
National Institutes of Health K01DK080951 Mentored Clinical Scientists Award $405,000. PI: Michelle Barati, Ph.D. Mentor: Jon B. Klein, M.D., Ph.D.

National Institutes of Health: 1U01DK085673-01 10/01/2009 – 04/30/2016 Award $601,788 PI: Brad H. Rovin, M.D., FACP, FASN-Ohio State PI Subaward: Jon B. Klein, M.D., Ph.D.

National Institutes of Health R0101DK091584 09/20/2011-08/31/2016 Award $2,673,503 PI: Michael L. Merchant, Ph.D. and Michael Brier, Ph.D. "Novel Biomarker Validation and dosing algorithms for anemia management in ESRD". Co-Investigator.

National Institutes of Health R01DK096927 04/01/2013-09/31/2018 Award $747,585 PI: Brad H. Rovin, M.D., FACP, FASN, Ohio State University. "Discovery of Biomarkers of Kidney Pathology". Co-Investigator.

National Institutes of Health R01 DK101350-01 (Subaward) – Rush University Medical Center
PI: Jochen Reiser, M.D. – Rush University Medical Center PI Sub Award: Jon B. Klein, M.D., Ph.D.
.60 Cal Months (5%)"Role of Circulating suPAR in FSGS"

National Institutes of Health R01-DK096927 (Subaward) – Ohio State University
PI: Brad Rovin, M.D. – Ohio State University
PI Sub Award: Jon B. Klein, M.D., Ph.D.
1.32 calendar months (11%) In NCE

Federal - Veterans Administration:

Veterans Administration Merit Review Grant, 1991-1994, $648,800, "Priming of immune cells by cytokines," Principal Investigator.

Veterans Administration Merit Review Grant, 1994-1998, $1, 022,000, "Priming of immune cells by cytokines: Role of G protein synthesis," Principal Investigator.

Veterans Administration Merit Review Grant, Oct. 1998-Sept. 2001, $455.000, "Control of immune cells: role of antiapoptosis proteins". Principal Investigator

Veterans Administration Equipment Grant, 1994, $25,000, "Laser Confocal Microscope," Principal Investigator.

Veterans Administration Merit Review Grant, Oct 1999 - September 2003. $471,600 "Mechanisms of Neutrophil Activation" Co-Investigator.

Federal Funding Agencies – Other:

Office of Science Financial Assistance Program-U.S. Department of Energy DE-FG02-05ER6406 PI: Jon B. Klein, M.D., Ph.D. “Clinical Proteomics Center” 2005-2010. $3,000,000.

Department of Energy: (DAM.D.17-PC03-IDEA) May-2004 – April 2007. $551,042 “Mechanistic Studies of oligonucleotide Aptamers with Potent Antiproliferative and Pro-apoptotic Activity against Prostate Cancer Cells.”

NASA (NRS-89-0SSA), 1990 - 1994, $258,600, "Cell biology/immunology studies aboard the international microgravity laboratory-2," Co-Investigator.

NASA-Ames (NCA2-574), 1990-1992, $10,000, "Signal transduction in neutrophils," Collaborating Investigator.

Local and Regional Funding Agencies

Louisville Institute for Heart and Lung Disease, 1989-1990, $20,000, "Effect of verapamil on glomerular filtration rate in orthotopic cardiac transplant recipients on cyclosporine therapy," Co-Investigator.

American Heart Association (Kentucky Affiliate), 1989-1990, $32,000, "Effect of interferon alpha/beta on infection and rejection in the rat cardiac allograft model," Co- Investigator.

University of Louisville Bales Research Fund, $5,500, "Use of an affinity membrane to isolate the FMLP receptor," Principal Investigator.

President's Research Initiative, Competitive Enhancement Grant, 1994, $6,000, "Priming of immune cells by cytokines: Role of G protein synthesis", Principal Investigator.

Baxter Healthcare Corporation Extramural Grant Program, 1994-1997, $118,215, "Neutrophil oxidative burst dysfunction in uremia," Collaborating Investigator.

Jewish Hospital Healthcare Services Foundation, 1994-1995, $32,750, "Establishment of a Laser Confocal Microscopy Laboratory at the University of Louisville," Principal Investigator.

National Kidney Foundation (Kentucky Affiliate) 1994-1995, $10,000, "Establishment of a Laser Confocal Microscopy Laboratory at the University of Louisville," Principal Investigator.

Jewish Hospital Foundation, Inc. $49,943, "Neutrophil Oxidative Burst Dysfunction in Renal Transplantation", Principal Investigator.

Kentucky Science and Engineering Foundation "Novel Therapeutic Intervention for Non-Alcoholic Steatohepatitis (NASH)" $110,000, Co-Investigator, 2002.

Kentucky Economic Development Funding Authority, “The Kentucky Proteomics Training Facility”. $1,000,000 Principal Investigator. January 01/2003 – December 2004.

Kentucky Science & Engineering Foundation International (KSEF-1034-RDE-008) – November 2005 - October 2007 $99,853 “Proteomic Identification of Urinary Biomarkers for Diabetic Nephropathy”.

Center for Genetics and Molecular Medicine (CGeMM) October 2005 – September 2006 “Proteomic analysis of diabetic nephropathy” $15,000.

Jewish Heritage Fund for Excellence 2017-Present “Competitive Enhancement Grants” $600,000 annually ($1.8 million total) to support bridge grants in the Schools of Medicine, Dentistry, Nursing and Public Health and Information Sciences.

Jewish Heritage Fund for Excellence 2018-Present “Faculty Recruitment Program” $600,000 each year ($1.2 million total to date) to attract and retain talented faculty to the Schools of Medicine, Dentistry, Nursing and Public Health and Information Sciences.

Research Industry/Funded-Completed:

Glaxo Incorporated, 1987-1988, $42,000, "Effect of multiple oral doses of GR32191 on cyclosporine nephrotoxicity," Principal Investigator.

Dideco Incorporated, 1987-1988, $38,000, "Small volume therapeutic pheresis," Principal Investigator.

Genentech Incorporated, 1989, $17,800, "Effect of parenteral interferon-gamma on PMN oxidative function," Principal Investigator.

Genentech Incorporated, 1990, $22,000, "Effect of interferon-gamma on infection following transplantation," Principal Investigator.

Baxter International, 1994, $22,200, "A randomized placebo controlled study to evaluate anti-CD45 monoclonal antibodies in the pretreatment of organs for the prevention of acute kidney transplant rejection", Co-principal Investigator.

Sandoz, Inc., 1993-1995, $123,000, "A randomized multicenter three month, double-blind pharmacokinetic, safety, and tolerability study of Sandimmune Neoral soft gelatin capsules in comparison to Sandimmune soft gelatin capsules in postoperative primary renal transplants", Co-principal Investigator.

Sandoz, Inc., 1995-1998, $171,491.80, "A multicenter randomized double blind placebo controlled trial of SDZ CHI621 for the prevention of acute cellular rejection in renal allograft recipients", Co-principal Investigator.

Genomic Solutions, Inc., $175,000, Development of an Improved Electrophoresis Gel Support. Co-principal Investigator.

Industry:

ACTIVE – None

RESEARCH SUPPORT (Federal): ACTIVE

NIH 1-UM1-DK100865-01 (Subaward) – RINCH/Research Institute at Nationwide Children's Hospital — 10/01/2019 – 9/30/2024
Multiple PI: Jon B. Klein, M.D., Ph.D.
.60 Cal Months (5%)
"Integrative Proteomics & Metabolomics for Pediatric Glomerular Disease Biomarkers"
The immediate goal of this project is to build a biobank of 1,400 patients with five different glomerular diseases. These specimens will be used to discover and characterize plasma and urine biomarkers of pediatric glomerular disease biomarkers using mass spectrometry.

NIH 1K08DK102452-01
PI: Dawn Caster, M.D. — 02/25/2016-02/24/2021
Mentor: Jon B. Klein, M.D., Ph.D. — $761,010
0.00 calendar (0%)
"Nephritogenic autoantibodies in systemic lupus"
This mentored Career Development proposal will identify and characterize the nephritigenic autoantibodies that cause MLN using a similar experimental direction that identified PLA2R as target antigen on IMN.

1 R01 DK110077-01 — 9/20/2016-8/31/2021
Multiple PI: Jon Klein, M.D., Ph.D along with PI at Research Institute at Nationwide Children's Hospital; William Smoyer, MD. — $1,796,538
"Integrating Proteomics and Metabolomics to Understand Pediatric Glomerular Disease Pathophysiology and Prognosis"
1.2 calendar (10%)
The immediate goal of this project is to discover and characterize urine biomarkers of pediatric glomerular disease biomarkers using combined metabolomic and proteomic analysis.

PATENTS:

1. Czarniecki C, Klein JB, Slater AD, Sonnenfeld G: Control of microbial infections in transplant patients. United States Patent 5,248,499. September 28, 1993.

2. Harding G, Klein E, Klein JB: Improved Electrophoresis Gel Support. U.S. Patent Application Serial No. 60/202,264. University of Louisville File No. 91101 and 91102. August 15, 2000. U.S. Patent 6,833,060 B2 December 21, 2004

3. Klein JB, Merchant ML, Boratyn G: Peptide Biomarkers Predictive of Renal Function Decline and Kidney Disease. U.S. Provisional Patent 60/974, 002 September 20, 2007.

4. Klein JB, Merchant ML, Ouseph R, Ward RA, University of Louisville Research Foundation, Inc.: Peptide Biomarkers of Cardiovascular Disease. U.S. Provisional Patent Application 60/970, 121 & 60/970, 369. September 6, 2007. U.S. Patent 8,703,435 April 22, 2014. CIP 9,588,128 March 3, 2017

5. Klein, JB, Klein, E, Merchant, M, University of Louisville Research Foundation, Inc.: Isolation of membrane vesicles from biological fluids and methods of using same. U.S. Provisional Patent Application 60/795,063. U.S. Patent 8,758,991 9 June 24, 2014

6. Tezel, T, Kaplan, H, Klein, J, University of Louisville Research Foundation, Inc.: Hemoglobin-based methods for optimizing prophylaxis, diagnosis and/or treatment of retinal and choroidal diseases. U.S. Provisional Patent Application 60/796,224. April 26, 2006.

7. Merchant, M, Klein, J, Brier, M, Gaweda, A, University of Louisville Research Foundation, Inc.: Methods and Kits for Predicting a Response to an Erythropoietic Agent. U.S. 14/712,323 August 7, 2018.

8. Agrawahl, S, Smoyer, W, Klein, J, Merchant, M, The Research Institute at Nationwide Children's Hospital: Steroid Resistance in Nephrotic Syndrome. WO2018094021A1 November 16, 2017.

INVENTION DISCLOSURES

Invention Title	Disclosed	Application	IP Title	Country	Filed
Use of ifn-gamma for the treatment of infections in transplant recipients			Use of ifn-gamma for the treatment of infections in transplant recipients	PCT	
Improved isoelectric focusing capillary gel - microporous fibers	36467	60/202,264	Improved electrophoresis gel support	United States	5/5/00

Improved isoelectric focusing capillary gel - microporous fibers	36467	PCT/US01/14617	Improved electrophoresis gel support	PCT	5/7/01
Improved isoelectric focusing capillary gel - microporous fibers	36467	09/850,540	Electrophoresis gel support	United States	5/7/01
Improved isoelectric focusing capillary gel - polyethylene capillaries	36467				
Device and process for the separation of minute amounts of complex protein mixtures prior to analysis by instrumental or biological means	36942				
Proteomic profile of diabetic kidney disease	37141				
Facilitation of minor component identification in 2-d page gels	37179				
Selective surface adsorption media	38169				
An improved methodology for protein and peptide biomarker discovery in urine	38527				
Process for the rapid recovery of exosomes from urine and other biological fluids	38527	60/795,063	Isolation of membrane vesicles from biological fluids and methods of using same	United States	4/26/06
Process for the rapid recovery of exosomes from urine and other biological fluids	38527	PCT/US07/067509	Isolation of membrane vesicles from biological fluids and methods of using same	PCT	4/26/07

Process for the rapid recovery of exosomes from urine and other biological fluids	38527	12/298,467	Isolation of membrane vesicles from biological fluids and methods of using same	United States	10/24/08
Hemoglobin (hgb) expression in human retinal pigment epithelium (rpe): a new perspective on oxygen transport to the outer retina	38778	60/796,224	Hemoglobin-based methods for optimizing prophylaxis, diagnosis and/or treatment of retinal and choroidal diseases	United States	4/28/06
Hemoglobin (hgb) expression in human retinal pigment epithelium (rpe): a new perspective on oxygen transport to the outer retina	38778	PCT/US07/64940	Hemoglobin (hgb) expression in human retinal pigment epithelium (rpe): a new perspective on oxygen transport to the outer retina	PCT	3/26/07
Hemoglobin (hgb) expression in human retinal pigment epithelium (rpe): a new perspective on oxygen transport to the outer retina	38778	60/785,884	Hemoglobin based methods for optimizing prophylaxis, diagnosis and/or treatment of retinal and choroidal diseases	United States	3/24/06
Hemoglobin (hgb) expression in human retinal pigment epithelium (rpe): a new perspective on oxygen transport to the outer retina	38778	12/294,409	Hemoglobin-based methods for prophylaxis, diagnosis and/or treatment of retinal disorders	United States	9/24/08
Hemoglobin (hgb) expression in human retinal pigment epithelium (rpe): a new perspective on oxygen transport to the outer retina	38778	2007230570	Hemoglobin-based methods for prophylaxis, diagnosis and/or treatment of retinal disorders	Australia	10/16/08

Hemoglobin (hgb) expression in human retinal pigment epithelium (rpe): a new perspective on oxygen transport to the outer retina	38778	7759392.9	Hemoglobin-based methods for prophylaxis, diagnosis and/or treatment of retinal disorders	Europe	12/24/08
Novel window-based normalization procedure for comparative analysis of mass spectra	38784				
Specific phosphorylated peptide biomarkers of coronary artery disease	38940	60/913,069	Peptide biomarkers of cardiovascular disease	United States	4/20/07
Specific phosphorylated peptide biomarkers of coronary artery disease	38940	60/970,369	Peptide biomarkers of cardiovascular disease	United States	9/6/07
Specific phosphorylated peptide biomarkers of coronary artery disease	38940	60/970,121	Peptide biomarkers of cardiovascular disease	United States	9/5/07
Specific phosphorylated peptide biomarkers of coronary artery disease	38940	PCT/US08/60879	Peptide biomarkers of cardiovascular disease	PCT	4/18/08
Specific phosphorylated peptide biomarkers of coronary artery disease	38940	12/596,814	Peptide biomarkers of cardiovascular disease	United States	10/20/09
An improved biomarker of coronary artery disease	38940				
A method and apparatus for real-time baseline removal and peak detection in mass spectra	38960				

Biomarkers to identify and predict renal function decline in diabetes mellitus	39072	60/974,002	Peptide biomarkers predictive of renal function decline and kidney disease	United States	9/20/07
Biomarkers to identify and predict renal function decline in diabetes mellitus	39072	61/050,521	Peptide biomarkers predictive of renal function decline and kidney disease	United States	5/5/08
Biomarkers to identify and predict renal function decline in diabetes mellitus	39072	PCT/US08/77091	Peptide biomarkers predictive of renal function decline and kidney disease	PCT	9/19/08
Biomarkers to identify and predict renal function decline in diabetes mellitus	39072	12/234,401	Peptide biomarkers predictive of renal function decline and kidney disease	United States	9/19/08
Biomarkers to identify and predict renal function decline in diabetes mellitus	39072	8832096.5	Peptide biomarkers predictive of renal function decline and kidney disease	Europe	4/20/10
Urinary and plasma peptidyl biomarkers of cervical dysplasia and cervical cancer	39512				
Plasma biomarkers of early progressive renal function decline	39512				
Urinary exosomes as a source for diagnostic micro RNA biomarkers	39934				

Single-step rapid isolation of microparticles and microvesicles from biological fluids and cell culture material for clinical assay purposes	39944			
Urinary biomarkers of idiopathic membranous nephropathy and renal function decline	40134			
Urinary exosomal biomarkers of nephrotic disease	40134			
Biomarkers of response to erythropoietic stimulating agents in dialysis patients and anemia of chronic disease	40287	61/357,843	Methods and kits for predicting a response to an erythropoietic agent	United States

EDITORIAL BOARDS AND MANUSCRIPT REVIEW

Co-Editor, International Journal of Artificial Organs 2008-2014
Member, Editorial Board, Clinical Nephrology 1991-Present
Member, Editorial Board, Journal of Cardiovascular Toxicology 2001-2007
Reviewer, The Journal of Clinical Investigation
Reviewer, The New England Journal of Medicine
Reviewer, Nature - Medicine
Reviewer, Journal of Immunology
Reviewer, Journal of Neuroscience
Reviewer, Kidney International
Reviewer, Journal of the American Society of Nephrology
Reviewer, Journal of Interferon Research
Reviewer, The American Journal of the Medical Sciences

ABSTRACTS

1. **Klein JB**, Kyner J: Hyperchloremic non-gap acidosis following recovery from diabetic ketoacidosis. Presented at the Kansas State Meeting of the American College of Physicians, April 1980.

2. **Klein JB**, McLeish K, Hodsden J, Lordon R: Hypertrophic cardiomyopathy: An acquired disorder of end stage renal disease. ASAIO Abstracts 12:53, 1983. Presented at the American Society for Artificial Internal Organs, April 28-30, 1983.

3. Klein LR, **Klein JB**, Hanno R, Callen JP: Mast cell quantity in pruritus of hemodialysis. Clinical Research, April 1986.

4. **Klein JB**, Gondi B, McLeish KR, Wathen RL: Comparison of acetate and bicarbonate dialysis in patients with concentric ventricular hypertrophy. Presented at the American Society of Nephrology, December 1985. Kidney International 29:217, 1986.

5. Gray LA, Slater AD, **Klein JB**, Davis MH: A successful cardiac transplantation program using combined university and community resources. Presented at the Southern Surgical Association, Palm Beach, Florida, November 30, 1986.

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82. Michelle T. Barati, Angela B. DeVillez, Kenneth R. McLeish, **Jon B. Klein**. Altered Cellular Redox Pathways and Advanced Glycation End Product (AGE) Metabolism in Glomeruli of db/db Diabetic Mice Defined by Proteomic Analysis. [SA-PO748] American Society of Nephrology 2004 Renal Week

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89. Michelle T. Barati, Michael L. Merchant, Kenneth R. McLeish, **Jon B. Klein**. Analysis of Glyoxalase I Activity in Renal Cortex of db/db Diabetic Mice. {F-PO312] American Society of Nephrology 2005 Renal Week

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94. Michael L. Merchant, Daniel W. Wilkey, Timothy D. Cummins, Sarah A. Salyer, **Jon B. Klein**, Eleanor D. Lederer. Proteomic Analysis of Renal Calculi Matrix Proteins Using a High-Sensitivity LC-MS/MS Approach. [SA-PO121] American Society of Nephrology 2007 Renal Week.

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96. Mary Jayne Kennedy, Angela Griffin, Michael Merchant, **Jon Klein**. Urine Collected from Non-Gel Containing Diapers Can Be Used for Proteomic Profiling in Infants and Young Children. [SA-PO127] American Society of Nephrology 2007 Renal Week.

97. Janice A. Scherzer, Linda H. Ficociello, Bruce A. Perkins, Daniel W. Wilkey, Grzegorz M. Boratyn, Michael L. Merchant, James H. Warram, **Jon B. Klein**, Andzrej S. Krolewski Difference In-Gel Electrophoresis Analysis of the Urinary Proteome in Patients with Type 1 Diabetes and New Onset Microalbuminuria According to Presence and Absence of Renal Function Decline. [SA-PO140] American Society of Nephrology 2007 Renal Week.

98. Timothy D. Cummins, Clinton C. Bertram, **Jon B. Klein**, David W. Powell. Quantitative Comparison of Renal Tubular Proteomes in OVE26 Diabetic and Control Mice by Liquid Chromatography Coupled Mass Spectrometry. [SA-PO245] American Society of Nephrology 2007 Renal Week.

99. Laurence H. Beck, Ramon G. B. Bonegio, Eric W. Eisenberg, David W. Powell, Timothy D. Cummins, **Jon B. Klein**, David J. Salant. Towards the Identification of the Autoantigen in Membranous Nephropathy. [SA-PO401] American Society of Nephrology 2007 Renal Week.

100. Michelle T. Barati, Madhavi J. Rane, **Jon B. Klein**. Albumin-Induced Endoplasmic Reticulum Stress in Human Proximal Tubule Cells Is Mediated by Reactive Oxygen Species. [SU-PO158] American Society of Nephrology 2007 Renal Week.

101. Madhavi Rane, Michelle Barati, Betty Villafuerte, Rui Wu, Hina Kausar, Jon Klein. C-Terminal Tail of the GABAB Receptor Acts as a Transcription Regulator in Human Renal Proximal Tubular Cells (RPTCs) Via an Akt-Dependent Signaling Pathway. [SU-PO185] American Society of Nephrology 2007 Renal Week.

102. David W. Powell, Clinton C. Bertram, Timothy D. Cummins, Michelle Barati, Shirong Zheng, Paul N. Epstein, **Jon B. Klein**. Tubular Epithelial-to-Mesenchymal Transition in OVE26 Diabetic Mice. [SU-P0316] American Society of Nephrology 2007 Renal Week.

103. Michelle T. Barati, David W. Powell, Shirong Zheng, Paul N. Epstein, **Jon B. Klein**. Endoplasmic Reticulum Stress in Tubules of Diabetic Mice. [SU-PO324] American Society of Nephrology 2007 Renal Week.

104. Proteomic Analysis Reveals elongin C as a Possible Mediator of Notch-4 Activity in renal Tubule Cells. Michael D. Mendenhall, Michelle T. Barati, Timothy D. Cummins, **Jon B. Klein**, David W. Powell [SA-FC365] American Society of Nephrology 2008 Renal Week.

105. Urinary Peptidomic Analysis Suggest Proximal Tubule Stress in Type-1 Diabetic Patients with Microalbuminuria Correlates with Early Progressive Renal Function Decline: Michael D. Mendenhall, Bruce A. Perkins, Grier P Page, Linda H. Ficociello, Brad H. Roven, James H. Warram, Andrzej S. Krolewski, **Jon B. Klein** [SA-FC368]. American Society of Nephrology 2008 Renal Week.

106. Glomerular Oxidant Expression alters the Urinary Peptidome in Murine Diabetic Nephropathy. Andrew J. Dailey, Michael L.Merchant, Daniel W. Wilkey, Shirong Zheng, Paul N. Epstein, **Jon B. Klein**. [SA-FC369] American Society of Nephrology 2008 Renal Week.

107. Discovery of the Phospholipase A2 Receptor as the Target Antigen in Idipathic Membranous Nephropathy. Laurence Beck, Ramon Bonegio, Gerald Lambeau, David Powell, Timothy Cummins, **Jon Klein** [SA-FC458]. American Society of Nephrology 2008 Renal Week.

108. Identification of a New Adaptor Molecular Involved in TGF-□ Signaling in Renal Tubule Epithelial Cells. Timothy D. Cummins, Clinton C. Bertram, **Jon B. Klein**, David W. Powell [F-PO1325] American Society of Nephrology 2008 Renal Week.

109. Reduced Ubiquitinationi of Urine Protein in Aminoglycoside-Treated Children with Nephrotoxicity. Mary Jayne Kennedy, Michael Merchant, J**on Klein** [F-PO2021]. American Society of Nephrology 2008 Renal Week.

110. Differential Scanning Calorimetric Analysis of Plasma for Microalbuminuric Type 1 Diabetics Distinguishes Early Progressive Renal Function Decline from Stable Renal Function. Michael L. Merchant, Nichola C. Garbett, Bruce A. Perkins, James H. Warram, Andrzej S. Krolewski, Jonathan B.Chaires, **Jon B. Klein** [SAP02176] American Society of Nephrology 2008 Renal Week.

111. Plasma Kininogen and Kininogen Peptide Fragment Levels Correlate with Progressive Renal Function Decline in Microalbuminuric Type-1 Diabetics. Michael L. Merchant, Janice Scherzer, Daniel W. Wilkey, Grier P. Page, Linda H. Ficociello, Bruce A. Perkins, James H. Warram, Andrzej S. Krolewski, **Jon B. Klein**. [SA-{P2177] American Society of Nephrology 2008 Renal Week.

112. Endoplasmic Reticulum Stress Signaling as a Mechanism of Renal Tubular Injury in Diabetes. Michelle Barati, David Powell, Paul Epstein, Madhavi Rane, **Jon Klein**. [SA-PO2372] American Society of Nephrology 2008 Renal Week.

113. Identification of Biomarkers in Nephrotic Syndrome: Isolation of Urinary Exosomes Jeroen Deegens, Ilse Rood, Micheal Merchant, Daniel Wilkey, Jack Wetzels, **Jon Klein**. [TH-PO205] American Society of Nephrology 2009 Renal Week.

114. Role and Regulation of Notch4 in TGF-beta Activity in Renal Tubules. David W. Powell, Michael D. Mendenhall, Timothy D. Cummins, Syed J. Khundmiri, Sarah A. Salyer, **Jon B. Klein**. [TH-PO724]American Society of Nephrology 2009 Renal Week.

115. Hyperglycemia Alters Kinin Signaling through the Bradykinin-2 Receptor in Cultured Renal Proximal Tubular Cells. Michael Merchant, Syed Khundmiri, Michelle Barati, David Powell, Kevin Wang, Daniel Wilkey, **Jon Klein** [TH-PO764] American Society of Nephrology 2009 Renal Week.

116. Identification of Diabetes-Induced ER Stress Response Signaling Effectors in Renal Tubule Cells Michelle T. Barati, David W. Powell, Angela Kain, Daniel Wilkey, Michael L. Merchant, **Jon B. Klein** [TH-PO778] American Society of Nephrology 2009 Renal Week.

117. Novel Proteomics Approaches to Discover Biomarkers for Predicting Prognosis in Membranous Nephropathy. Jeroen Deegens, Michael Merchant, David Powell, Timothy Cummings, Daniel Wilkey, Jack Wetzels, Jon Klein [SA-PO2289] American Society of Nephrology 2009 Renal Week.

118. Microarray Expression Profiling of miRNA in Human Urinary Exosomes. Michael Merchant, Tariq Hamid, Jeroen Deegens, Ilse M. Rood, Jack F. Wetzels, Sumanth D. Prabhu, **Jon B. Klein** [SA-PO2377] American Society of Nephrology 2009 Renal Week.

119. Proteomic Analysis of Serum from Erythropoietin Sensitive and Erythropoietin Resistant Hemodialysis Patients. Andrew J. Dailey, Michael L. Merchant, Adam E. Gaweda, Daniel W. Wilkey, Michael E. Brier, **Jon B. Klein** [SA-PO2382] American Society of Nephrology 2009 Renal Week.

120. Altered Wnt/β-catenin Pathway and Association of β-catenin with CHOP in Tubules of Diabetic Mice. Michelle T. Barati, Susan M. Isaacs, David W. Powell, Michael Merchant, **Jon B. Klein**. American Society of Nephology 2010 Renal Week [SA-PO2591]

121. Diabetes and High Protein Concentrations Alter Nrf2 Phosphorylation in Renal Tubule Cells Michelle T. Barati, Susan M. Isaacs, **Jon B. Klein**. American Society of Nephrology 2010 Renal Week [PUB053]

122. Altered Wnt/β-catenin Pathway and Association of β-catenin with CHOP in Tubules of Diabetic Mice American Society of Nephrology 2011 Renal Week [SA-PO2591]

123. Differential Regulation of Tubule Endoplasmic Reticulum Chaperones in OVE26 Type I Diabetic Mice : Michelle T. Barati, Ph.D., Susan M. Isaacs, **Jon B. Klein**, M.D., Ph.D. American Society of Nephrology 2012 Renal Week [TH-PO485]

124. Role of Bradykinins in Renal Development of Diabetic Complications. Syed J. Khundmiri, Ph.D., Michael Merchant, Ph.D., **Jon B. Klein**, M.D., Ph.D. American Society of Nephrology 2012 Renal Week [TH-PO847]

125. Regulation of Tubule Cell Nrf2 Phosphorylation by Diabetes and High Protein Concentrations. Michelle T. Barati, Ph.D., Susan M. Isaacs, Jason R. Parks, Abuhusnain S. Khundmiri, **Jon B. Klein**, M.D., Ph.D.. American Society of Nephrology 2012 Renal Week [FR-PO088]

126. Identification of Urine Biomarkers of Lupus Nephritis: CKD Biomarkers Consortium. **Jon B. Klein**, M.D., Ph.D., Michael Merchant, Ph.D., Huijuan Song, Xiaolan Zhang, Ph.D., Alison Marie McKinley Neal, Brad H. Rovin, M.D. American Society of Nephrology 2012 Renal Week [SA-PO754].

127. Identification of Candidate Target Antigens for Membranous Lupus Nephritis. Dawn J. Caster, M.D., Erik Korte, Michael Merchant, Ph.D., Brad H. Rovin, M.D., FASN, John Barker Harley, Bahram Namjou, **Jon B. Klein**, M.D., Ph.D., Kenneth R. McLeish, M.D., David W. Powell, Ph.D.. American Society of Nephrology 2012 Renal Week [SA-PO754].

128. Biomarkers of Interstital Kidney Pathology in Lupus Nephritis – THE CKD Biomarker Consortium. Brad H. Rovin, M.D., F.A.S.N., Huijuan Song, Cassandra L. Hines, Haifeng M. Wu, M.D., Vasan S. Ramachandran, Paul L. Kimmel, M.D., F.A.S.N., John W. Kusek, Ph.D., Harold I. Feldman, M.D., F.A.S.N., Michael Merchant, Ph.D., **Jon B. Klein, M.D., Ph.D.** American Society of Nephrology 2013 Renal Week. [SA-PO803].

129. Patterns of Circulating Autoantibodies in Patients with Lupus Nephritis. Dawn J. Caster, M.D., Daniel J. Birmingham, Ph.D., Ami S. Joglekar, M.D., **Jon B. Klein, M.D., Ph.D.**, John Barker Harley, Erik Korte, Brad H. Rovin, M.D., F.A.S.N., Kenneth R. McLeish, M.D., David W. Powell, Ph.D. American Society of Nephrology 2013 Renal Week. [RF-PO894].

130. Urinary Monocyte Chemotactic Protein-1 and Early Diabetic Nephropathy (DN) Lesions. Michael Mauer, M.D., Brad H. Rovin, M.D., F.A.S.N., Jon B. Klein, M.D., Ph.D., Vasan S. Ramachandran, Harold I. Feldman, M.D., F.A.S.N., Paul L. Kimmel, M.D., F.A.S.N., John W. Kusek, Ph.D., Robert G. Nelson, M.D., Ph.D. American Society of Nephrology 2013 Renal Week. [SA-OR074].

131. Identification of Thrombospondin Type 1 Domain Containing 7A as a Novel Antigen in Idiopathic Membranous Nephropathy. Nicola M. Tomas, Laurence H. Beck, Catherine Meyer-Schwesinger, Barbara Seitz-Polski, Hong Ma, Gunther Zahner, Guillaume Dolla, Elion Hoxha, Udo Martin

Helmchen, Michael Merchant, **Jon B. Klein**, David J. Salant, Rolf A. Stahl, Gerard J.Lambeau. American Society of Nephrology 2014 Renal Week

132. Optimization of Identification of the Glomerular Extracellular Matrix Proteome. Liliane Hobeika, M.D., Michelle T. Barati, Ph.D., **Jon B. Klein, M.D., Ph.D**., Kenneth R. McLeish M.D., Michael Merchant, Ph.D. American Society of Nephrology 2015 Renal Week. [FR-PO304].

133. Plasma Bradykinin and Early Diabetic Nephropathy in Type 1 Diabetes Mellitus. E. Jennifer Weil, M.D., Gudeta D. Fufaa, Ph.D., Robert G. Nelson, M.D., Ph.D., Michael Merchant, Ph.D., Brad H. Rovin, M.D., F.A.S.N., Michael Mauer, M.D., **Jon B. Klein, M.D., Ph.D.** American Society of Nephrology 2015 Renal Week. [FR-PO613].

134. Serial Hepcidin Concentrations in Incident and Prevalent Hemodialysis Subjects Relating to ESA Response. Michael E. Brier, Ph.D., Michael Merchant, Ph.D., Xiaolan Zhang, Ph.D., Jonathan Himmelfarb, M.D., F.A.S.N., Brad H. Rovin, M.D., F.A.S.N., **Jon B. Klein, M.D., Ph.D.** American Society of Nephrology 2015 Renal Week. [FR-PO805].

135. Role of Proteolytic Fragment of suPAR D2-D3 in Prediction and Cause of FSGS. Sanja Sever, Ph.D., Marina V. Kasaikina, Ph.D., Eileen, KIapples, Jian Cai, Ph.D., **Jon B. Klein, M.D., Ph.D.**, Nada Alachkar, M.D., David Changli Wei, M.D., Ph.D., Changkyu Gu, Ph.D., Jochen Reiser, M.D., Ph.D. American Society of Nephrology 2015 Renal Week. [FR-PO513].

136. Alternative Complement Components as Predictors of Acute Kidney Injury Risk. Michael Merchant, Ph.D., Michael E. Brier, Ph.D., Emily F. Anggelis, A.P.N., **Jon B. Klein, M.D., Ph.D.** Kenneth R. McLeish, M.D. American Society of Nephrology 2015 Renal Week. [TH-PO118].

137. Methods to Detect Candidate Serum Biomarkers of ESA Resistance. Michael Merchant, Ph.D., Steven Alan Hawkins, Daniel Wade Wilkey, Dusmita Datta, Ph.D., Brad H. Rovin, M.D., F.A.S.N., **Jon B. Klein, M.D., Ph.D.**, Jonathan Himmelfarb, M.D., F.A.S.N., Michel E. Brier, Ph.D. American Society of Nephrology 2015 Renal Week. [TH-PO832].

138. Moesin is a Target of Autoantibodies in Proliferative Lupus Nephritis. Dawn J. Caster, M.D., Erik Korte, Ryan M. Sheehan, Rachel Therese G'Sell, **Jon B. Klein, M.D., Ph.D.**, Michael Merchant, Ph.D., Michelle T. Barati, Ph.D., Brad H. Rovin, M.D., F.A.S.N., Daniel J. Birmingham, Ph.D., Bahram Namjou, Kenneth R. McLeish, M.D., David W. Powell, Ph.D. American Society of Nephrology 2015 Renal Week. [TH-PO331].

139. Identification of Thrombospondin Type 1 Doman Containing 7A as a Novel Antigen in Idiopathic Membranous Nephropathy. Nicola M. Tomas, M.D., Laurence H. Beck, M.D., Ph.D., Caterine Meyer-Schwesinger, M.D., Barbara Seitz-Polski, M.D., Ph.D., Hong Ma, Ph.D., Gunther Zahner, Ph.D., Guillaume Dolla, Elion Hoxha, M.D., Udo Martin Helmchen, M.D., Michael Merchant, Ph.D., **Jon B. Klein, M.D., Ph.D.**, David J. Salant, M.D., Rolf A. Stahl, M.D., Gerard J. Lambeau, Ph.D. American Society of Nephrology 2015 Renal Week. [TH-OR071].

140. Identification of Tissue Biomarkers Differentiating Primary IgA Nephropathy from Staphylococcus Infection Related Glomerulonephritis. Anjali A. Satoskar, M.D., Samir Parikh, M.D., Paul L. Yu, Tibor Nadasdy, M.D., Ph.D., Michael Merchant, Ph.D., **Jon B. Klein, M.D., Ph.D.**, Brad H. Rovin, M.D., F.A.S.N. American Society of Nephrology 2015 Renal Week. [SA-PO493].

141. Minichromosome Maintenance Protein 3 Associates with and Regulates Nrf2 in Proximal Tubules. Michelle T. Barati, Ph.D., Eric Poulos, Whitney L. Ward, Susan M. Isaacs, Madhavi J. Rane, Ph.D., **Jon B. Klein, M.D., Ph.D.**, Michael Merchant, Ph.D. American Society of Nephrology 2015 Renal Week. [SA-OR029].

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