CURRICULUM VITAE

John Allman Barnard, M.D.

PERSONAL DATA

Birth date:	November 10, 1955
Birthplace:	Valley Head, Alabama
Citizenship:	United States
Business Address:	The Research Institute at Nationwide Children's Hospital Room WA2011 700 Children's Drive Columbus, OH 43205 (614) 722-2880 (phone) (614) 722-5892 (fax) john.barnard@nationwidechildrens.org
	Gastroenterology/Nutrition 700 Children's Dr Columbus, OH 43205 PH: (614) 722-3450

EDUCATION AND TRAINING

B.S. in Chemistry Summa cum laude University of South Alabama Mobile, Alabama	1973-1976
Doctor of Medicine Alpha Omega Alpha University of Mississippi Jackson, Mississippi	1976-1980
Intern and Resident in Pediatrics Vanderbilt University School of Medicine Nashville, Tennessee	1980-1983
Fellow in Pediatric Gastroenterology and Nutrition Vanderbilt University School of Medicine Nashville, Tennessee	1983-1986

ACADEMIC APPOINTMENTS

Assistant Professor of Pediatrics — 7/1986 – 8/1987
Division of Gastroenterology and Nutrition
University of South Alabama College of Medicine
Mobile, Alabama

Assistant Professor of Pediatrics — 8/1987 – 7/1992
Division of Gastroenterology and Nutrition
Vanderbilt University School of Medicine
Nashville, Tennessee

Associate Professor of Pediatrics — 7/1992 – 7/2000
Division of Gastroenterology and Nutrition
Vanderbilt University School of Medicine

Professor of Pediatrics — 7/2000 - present
Division of Gastroenterology, Hepatology and Nutrition
The Ohio State University College of Medicine

ADMINISTRATIVE APPOINTMENTS

Chief — 1995 - 2000
Division Pediatric Gastroenterology and Nutrition
Department of Pediatrics
Vanderbilt University School of Medicine

Associate Director, Clinical Nutrition Research Unit — 1995-1997
Vanderbilt University School of Medicine

Chair — 2000-2004
Institutional Review Board
Nationwide Children's Hospital
(formerly Columbus Children's Hospital)

Vice-President for Scientific Affairs — 2000 – 2005
The Research Institute
Nationwide Children's Hospital
(formerly) Columbus Children's Research Institute

Director — 2002 – 2010
Center for Cell and Developmental Biology
The Research Institute
Nationwide Children's Hospital

ADMINISTRATIVE APPOINTMENTS (CONTINUED)

Interim President — 11/2004 – 10/2005
The Research Institute
Nationwide Children's Hospital

Interim Vice-Chair for Research — 11/2004 – 9/2005
Department of Pediatrics
The Ohio State University College of Medicine

President — 10/2005 - present
The Research Institute
Nationwide Children's Hospital

Vice-Chair for Research — 2005 - present
Department of Pediatrics
The Ohio State University College of Medicine

SIGNIFICANT DUTIES AND ACCOMPLISHMENTS AS PRESIDENT OF THE RESEARCH INSTITUTE AT NATIONWIDE CHILDREN'S HOSPITAL (2005 – 2010)

Strategy

Participate in Nationwide Children's Hospital's 5-year strategic planning exercise with McKinsey and Company; leading research component of plan

Finance

Manage annual research budget at Nationwide Children's Hospital (~ 95 million internal + external funding in 2010)

Oversee doubling of external research funding since 2005 (11.6% CAGR 2005-2010)

Develop annual Research Institute budget in collaboration with Nationwide Children's Hospital Chief Financial Officer and Board of Trustees

Partner with Nationwide Children's Hospital Foundation for philanthropic, media, and marketing activities related to The Research Institute

Oversee Vice-President of Finance and Sponsored projects at The Research Institute

Research Faculty

Recruited 58 new, tenure-track research faculty members, including 6 new research Center of Emphasis directors since 1/1/2005

SIGNIFICANT DUTIES AND ACCOMPLISHMENTS AS PRESIDENT OF THE RESEARCH INSTITUTE AT NATIONWIDE CHILDREN'S HOSPITAL (2005 –2010)

Research Faculty (continued)

Evaluate goals and performance of Center directors annually

Formally evaluate The Research Institute's Center of Emphasis directors annually

Support, nurture and cultivate faculty development at The Research Institute using Senn-Delaney leadership and culture shaping program

Research Facilities and Scientific Infrastructure

Participate in development and execution of 25-year campus master facilities plan

Planning and construction of 250,000 sq ft Research Building III (open third quarter 2012)

Cultivate state-of-the art infrastructure (shared resources) in support of research

Oversee Vice-President of Facilities and Operations

Initiated Office of Technology Commercialization at The Research Institute

SPECIALITY CERTIFICATION AND LICENSURE

American Board of Pediatrics, #32693	1985
Tennessee License, #17989	1987 – 2000
American Board of Pediatrics Sub-board of Pediatric Gastroenterology/Nutrition, #024	1990
Recertification American Board of Pediatrics Sub-Board of Pediatric Gastroenterology/Nutrition	1999
Ohio Medical License, #78351	2000
Recertification American Board of Pediatrics Sub-Board of Pediatric Gastroenterology/Nutrition	2004

MEMBERSHIPS

American Gastroenterological Association	1986 - present
North American Society for Pediatric Gastroenterology Hepatology and Nutrition (NASPGHAN)	1987 - present
American Society for Parenteral and Enteral Nutrition (ASPEN)	1991 - 1996
Society for Pediatric Research	1991- present
Crohn's and Colitis Foundation of America	1997- present
American Pediatric Society	2003 - present

LOCAL COMMITTEES

Pediatric Housestaff Recruitment Committee Department of Pediatrics, University of South Alabama	1987
Amos Christie Pediatric Alumni Society Steering Committee Vanderbilt University School of Medicine	1987 – 2000
Housestaff Recruitment Committee Vanderbilt University School of Medicine	1989 - 1993
Pediatric Resident's Curriculum Committee Vanderbilt University School of Medicine	1993 - 2000
Medical Center East Executive Committee Vanderbilt University Medical Center	1995 - 2000
Pediatric Clinic Governance Committee Vanderbilt University Medical Center	1995 - 1998
President, Amos Christie Pediatric Alumni Society Vanderbilt University School of Medicine	1996 - 1998
Advisory Committee, East Tennessee Chapter, CCFA Crohn's and Colitis Foundation of America	1998 – 2000
Operating Room Committee New Children's Hospital Design Team Vanderbilt University Medical Center	1999 - 2000
Executive Committee	1999 - 2000

New Children's Hospital Design Team, Vanderbilt

LOCAL COMMITTEES (CONTINUED)

Chairperson Institutional Review Board Nationwide Children's Hospital	2000 – 2004
Promotion and Tenure Committee Department of Pediatrics The Ohio State University College of Medicine	2001 – 2005
Promotion and Tenure Committee The Ohio State University College of Medicine	2005 - 2008
Member, Office of the Chief Executive Officer Nationwide Children's Hospital	2005 - present
Standing Member, Board of Trustees Nationwide Children's Hospital Nationwide Children's Hospital Foundation The Research Institute	2005 - present
Member, Patents and Copyright Committee Nationwide Children's Hospital	2005 – present
Corporate Compliance Committee Nationwide Children's Hospital	2007 – present
Member, Research Building III Planning Committee	2008 - present
Co-Chair, Promotion and Tenure Revision Task Force The Ohio State University College of Medicine	2009 - 2010
Member, Oversight Committee, Comprehensive Center for Autism Spectrum Disorders	2011 - present
Member, Davis Heart and Lung Research Institute Internal Advisory Board	2011 - present
Member, Juvenile Diabetes Research Foundation Board of Directors	2011 - present
Chair, Ohio Children's Hospital Association (OCHA) Research Collaborative Task Force	2011-present
Promotion and Tenure Committee The Ohio State University	2011-present

SEARCH COMMITTEES

Adolescent Medicine Division Director 1998
Vanderbilt University School of Medicine
Recruited: Lynn Walker, PhD

Nephrology Division Director 1999
Vanderbilt University School of Medicine
Recruited: Kathy Jabs, MD

Hematology-Oncology Division Director 2002
Nationwide Children's Hospital
Recruited: Tom Gross, MD, PhD

Committee Chair 2004
Gastroenterology Division Director
Nationwide Children's Hospital
Recruited: Carlo Di Lorenzo, MD

Chief Information Officer 2004
Nationwide Children's Hospital
Recruited: Search aborted

Chief Executive Officer 2006
Nationwide Children's Hospital
Recruited: Steve Allen, MD, MBA

Committee Chair 2009
Center for Childhood Cancer
Nationwide Children's Hospital
Recruited: Peter Houghton, PhD

Committee Chair 2011
Division Hematology, Oncology, Bone Marrow Transplantation
Nationwide Children's Hospital
Recruited: Underway

Dean 2011
The Ohio State University College of Medicine
Recruited: Underway

Chief, Neurosurgery 2011
Nationwide Children's Hospital
Recruited: Underway

NATIONAL COMMITTEES AND ELECTED POSITIONS

Member, NIH Review Panel Perinatal Emphasis Research Center (PERC)	1992
Member, Data Safety Monitoring Board Cystic Fibrosis Foundation	1999 - present
Member, NIH Review Panel Development and Cell Biology of Epithelium, NIDDK	2002
Chair, NASPGHAN Research Committee	2002 - 2004
Member, NIH Review panel	2003 – 2004
Multiple instances ad hoc service General Medicine A2	
Member, NIH Consensus Panel on Celiac Disease	2004
President-Elect, President and Past-President North American Society for Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN)	2004 - 2009
Member, Executive Committee Federation of International Societies of Pediatric Gastroenterology, Hepatology and Nutrition (FISPGHAN)	2006 - 2010
Member, World Congress III Planning Committee FISPGHAN	2006 – 2008
Member and Currently Chair Pediatric Acute Liver Failure Data Safety Monitoring Board National Institute Diabetes and Digestive and Kidney Diseases	2006 - present
Member, NIH Review Panel Gastrointestinal Cell and Molecular Biology, Study Section	2005 - 2008
Chair, Publications Committee NASPGHAN	2007 - 2009
Chair, NIH Special Emphasis Panel Childhood Liver Disease Research and Education Network	2009
Member, NIH Special Emphasis Panel Child Health Research Career Development Award Program	2010

NATIONAL COMMITTEES AND ELECTED POSITIONS (CONTINUED)

Chair, NIH Special Emphasis Panel Ancillary Studies to Major Ongoing Clinical Research Studies to Advance Areas of Scientific Interest within the Mission of the NIDDK	2010
Member, GI Nutritional Advisory Group Early Nutritional Growth, and GI Outcomes in Infants with CF Cystic Fibrosis Foundation	2010 - present
President-Elect, Children's Digestive Health and Nutrition Foundation	2010 - present

HONORS AND AWARDS

Outstanding Graduating Chemistry Student University of South Alabama	1976
Summa Cum Laude Graduate University of South Alabama	1976
Alpha Omega Alpha University of Mississippi School of Medicine	1980
Young Investigator Award Southern Society for Pediatric Research	1985
American Gastroenterological Association/Pharmacia Scholar	1988 - 1991
Young Investigator Award North American Society for Pediatric Gastroenterology, Hepatology and Nutrition	1990
Lifetime Achievement Award Vanderbilt University Pediatric Residency Program	2000
Best Doctors	2003 – present
Executive of the Year Ohio TopCAT (Top Contributors to the Advancement of Technology)	2007
March of Dimes Champion for Babies Central Ohio March of Dimes	2009

RESEARCH FUNDING AS PRINCIPAL INVESTIGATOR (COMPLETED)

National Research Service Award (training grant) NIH #AM07083 (1983-1986)

"Development of Amino Acid Transport"
NIDDK Clinical Nutrition Research Unit Core Center (P30) Pilot Project
Total costs $19,500 (1985-1986); Role: Principal Investigator

"Regulation of Intestinal Epithelial Cell Growth by TGFβ"
NIDDK Clinical Nutrition Research Unit Core Center (P30)
Total costs: $100,000 (1987-1989); Role: New Investigator

"Regulation of Growth and Differentiation of the Enterocyte"
American Gastroenterological Association/Pharmacia Scholar Award;
Total costs: $90,000 (1988 – 1990); Role: Principal Investigator

"Role of Transforming Growth Factors in the Intestine";
NIDDK KO8 DK01893
Total costs: $429,410 (1989 – 1994); Role: Principal Investigator

"Induction of Intestinal Gene Expression by Butyrate"
NIDDK Clinical Nutrition Research Unit Core Center (P30) Pilot Project
Total costs: $30,000 (1994-1995); Role: Principal Investigator

"Regulation of Colonocyte Growth and Differentiation by Butyrate"
American Institute for Cancer Research Investigator Award
Total costs: $110,000 (1994 – 1996); Role: Principal Investigator

"Regulation of Intestinal Epithelial Growth by EGF-related Peptides"
NIDDK R01 DK40637
Total costs: $539,361 (1996 – 1999); Role: Principal Investigator

"Regulation of TGFβ Receptors in Intestinal Cells"
Vanderbilt-Ingram Cancer Center Pilot Project
Total costs: $30,000; (1999 – 2000); Role: Principal Investigator

"TGFβ Regulation of Intestinal Epithelial Cells"
NIDDK RO1 DK59656-09
Total costs: $1,512,000; (2005-2010); Role: Principal Investigator

"Institutional Training Grant for Pediatricians"
NICHD T32HD043003
Total costs: $906,021 (2003-2007); Role: wrote grant (PI role obligatory
Department Chair, Thomas Hansen/Michael Brady)

CURRENT RESEARCH FUNDING

"Child Health Research Career Developmental Award"
NICHD K12 HD043372-09
Total Costs: $2,023,850 (2008 – Present); Role: wrote the most recent competitive renewal (PI role obligatory assignment to Department Chair, Michael Brady); serve as Program Director

"The Ohio State University Center for Clinical and Translational Science" (CTSA)
NCRR UL1RR025755
2008-2013; Role: Co-Principal Investigator

"TGFβ Regulation of Intestinal Epithelial Cells" – Supplement
NIDDK RO1 DK59656-09S1
Total Costs: $58,444 (2009-2011) Role: Principal Investigator

"Institutional Training Grant for Pediatricians"
NICHD T32 HD043003-06
Total costs: $1,022,548 (2010 – 2015); Role: Principal Investigator

EXTERNAL SCHOLARLY ACTIVITIES AND PRESENTATIONS

Invited Speaker, University of Mississippi 1992
"New Developments in Pediatric Gastroenterology"

Invited Speaker, Cincinnati Children's Hospital Medical Center 1993
"Regulation of Intestinal Epithelial Growth by TGFβ"

Invited Speaker, University of Missouri Health Sciences Center 1993
"New Developments in Inflammatory Bowel Disease"

Invited Speaker, University of Tennessee, Chattanooga 1993
"Evaluating Chronic Diarrhea in Children"

Invited Speaker, University of Iowa 1994
"Regulation of Intestinal Epithelial Growth by EGF-related peptides"

Invited Speaker, American Institute for Cancer Research 1996
"Regulation of Intestinal Proliferation by Short Chain Fatty Acids"

Invited Speaker, University of Mississippi 1997
"*Helicobacter Pylori* Infection in Children"

Invited Speaker, Children's Hospital of Philadelphia 1997
"Regulation of TGFβ Receptor Expression by Oncogenic Ras"

EXTERNAL SCHOLARLY PRESENTATIONS AND ACTIVITIES (CONTINUED)

Guest Editor, "Common Gastrointestinal Problems", *Pediatric Annals* 1997

Visiting Professor, New York University, Department of Pediatrics 1997
"New Developments in Intestinal Polyposis Syndromes"

Invited Speaker, NASPGHAN: Meet the Professor Breakfast 1998
"Growth Factor Regulation of Intestinal Epithelial Growth"

Invited Speaker, University of Illinois in Peoria 1999
"New Insights into Recurrent Abdominal Pain"

Invited Speaker, South Carolina Chapter of the AAP 1999
"What is New in Pediatric Gastroenterology?"
"Neonatal Cholestasis"
"Practical Approach to Constipation"
Invited Speaker, Children's Hospital, Columbus, OH 2000
"Regulation in Intestinal Epithelial Growth by TGFβ"

Invited Speaker, British Society for Immunology, Congress 2000 2000
Harrogate International Centre, London, U.K.
"Regulation of the Intestinal Epithelium by TGFβ "

Guest Faculty, Mead Johnson Research Forum 2001
for Pediatric Gastroenterologists; Scottsdale, Arizona

Invited Speaker, Drug Information Associations, Denver 2001
"Pediatric Alliances as Models to Assure Ethical Conduct of
Research in Children"

Invited Speaker, North American Society for Pediatric 2001
Gastroenterology, Hepatology and Nutrition, Orlando FL
"Keys to Writing a Competitive Grant"

Visiting Professor, Division of Gastroenterology 2002
Children's Hospital Medical Center, Cincinnati, OH

Organizer, NASPGHAN Post-Graduate Course, San Antonio 2002
"Pediatric Gastroenterology: Cutting Edge Medicine for the Clinician"

Organizing Committee, NASPGAN Annual Meeting, Montreal Canada 2003

Organizer, NASPGHAN/Mead-Johnson Research Forum for Pediatric 2004
Gastroenterologists; Phoenix, AZ

Visiting Professor, University of Michigan 2004

EXTERNAL SCHOLARLY PRESENTATIONS AND ACTIVITIES (CONTINUED)

"Recent Advances in Polyposis Syndromes in Children"

Invited Speaker, American Gastroenterological Association 2004
"Epidermal Growth Factor and COX-2: Intersecting Pathways"

Visiting Professor, University of Wisconsin 2004
"Recent Advances in Gastrointestinal Polyp Disorders Affecting Children"

Visiting Professor, University of Iowa 2005
"Gastrointestinal Polyps in Children"

Organizer, NASPGHAN/Mead-Johnson Research Forum for Pediatric Gastroenterologists, Phoenix, AZ 2005

Invited Speaker, Children's Mercy Hospital, Kansas City 2005
"Recent Advances in Gastrointestinal Polyp Disorders Affecting Children"

Invited Speaker, NASPGHAN Fellow Conference, Key Biscayne, FL 2005
"Manuscripts 101"

Invited Speaker, University of Louisville, Kosair Children's Hospital 2006
"Recent Advances in the Biology of Polyp Syndromes in Children"

Visiting Professor, The Hospital for Sick Children, Toronto 2006
"Recent Advances in the Biology of Polyp Syndromes in Children"
"TGFβ in Intestinal Biology"

Invited Speaker, ESPGHAN Symposium on Genetic Factors in Functional & Structural GI Disorders, Capri, Italy 2006
"Advances in the Molecular Biology of Gastrointestinal Polyps: Implications for Clinical Practice"

Invited Speaker, Pan American Congress of GI, Cancun, Mexico 2006
"New Biological Therapies for Inflammatory Bowel Disease"

Plateau Pediatric Grand Rounds, Tulane University 2008
"Recent Advances in the Biology of Gastrointestinal Polyps in Children"

Visiting Professor, University of Pennsylvania School of Medicine 2008
"Regulation of the Intestinal Epithelium by Transforming Growth Factor-β Signaling"

Visiting Professor, Emory University School of Medicine 2009
"Regulation of Intestinal Growth by TGFβ"

"Academic Careers in Pediatric Gastroenterology"

EXTERNAL SCHOLARLY PRESENTATIONS AND ACTIVITIES (CONTINUED)

Invited Speaker, Third ESPGHAN Capri Meeting 2009
"Colonic Diseases: Problems and Progress", in Capri, Italy
"Genetic Screening in Childhood Polyp Disorders"

Invited Speaker, NASPGHAN Plenary Session, New Orleans, LA 2010
"Basic Sciences Year in Review"

TEACHING AND MENTORING

Clinical Teaching and Mentoring

Attending, Inpatient Service, Department of Pediatrics, University of South Alabama, Mobile, AL (resident and medical student teaching) (1986-1987).

Attending Physician, Inpatient Service, Department of Pediatrics, Vanderbilt University Children's Hospital, Nashville, TN (resident and medical student teaching) (1987-2000); one month/yr

Teaching Physician, Pediatric Gastroenterology Nutrition Rotation, Vanderbilt University Children's Hospital, Nashville, TN (resident and medical student teaching; three to five months per year) (1987-2000)

Attending Physician, Inpatient Service, Department of Pediatrics, Nationwide Children's Hospital, Columbus, OH (resident and medical student teaching; one month per year, 2001-2010).

Research Mentoring:

Alan Sacks, M.D.
Fellow in Gastroenterology and Nutrition (1990-1993)
Winner, Vanderbilt University Resident Research Day Forum, 1993

Phyllis R. Bishop, M.D.
Fellow in Gastroenterology and Nutrition (1991-1994)
Vanderbilt University College of Medicine

Michele Winesett, M.D.
Fellow in Gastroenterology and Nutrition (1993-1996)
Vanderbilt University College of Medicine

John Stutts, M.D., MPH
Fellow in Gastroenterology and Nutrition (1997-2000)
Winner, Functional Brain/Gut Group Young Investigator Award for Clinical Research, American Gastroenterological Association

TEACHING AND MENTORING (CONTINUED)

Carl Allen, MD, PhD
Resident, Integrated Research Pathway

Society for Pediatric Research House Office Research Award (2003-2004)

Adam Yakovich, PhD
Postdoctoral Fellow (2007-2010)

Ronnie Matta
Dissertation Committee (2007 – 2010)

Allysa Charrier
Dissertation Committee (2010 – present)

Major Local Departmental/Hospital Seminars/Courses (NOT INCLUSIVE)

Grand Rounds in Pediatrics, University of South Alabama, Mobile Alabama
"Parenteral Nutrition", 1987

Grand Rounds in Pediatrics, Vanderbilt University School of Medicine
"New Developments in Pediatric Gastroenterology", 1989

Amos Christie Pediatric Alumni Society, Amelia Island, FL
"Advances in Pediatric Gastroenterology", 1990

Molecular Basis for Disease, Vanderbilt University School of Medicine
"α-1-Antitrypsin Deficiency", 1992

Symposium in Neonatal Medicine, Vanderbilt University School of Medicine
"Evaluation of Neonatal Cholestasis", 1992

Discussant, Pediatric Clinicopathological Conference, Vanderbilt Department of Pathology 1989, 1994, 1997, 1998

Grand Rounds in Pediatrics, Meharry College of Medicine
"Peptic Ulcer Disease", 1992

Medical Physiology Clinical Correlation Conference, Vanderbilt University School of Medicine, "Lactose Malabsorption" 1993-1996

Grand Rounds in Pediatrics, Vanderbilt University School of Medicine
"Gastrointestinal Problems Due to Consumption of Milk", 1996

Grand Rounds in Pediatrics, Vanderbilt University School of Medicine

"New Developments in Intestinal Polyposis Syndromes", 1998

TEACHING AND MENTORING (CONTINUED)

Major Local Departmental/Hospital Seminars/Courses (NOT INCLUSIVE) (Continued)

Nutrition Course, 1st year medical students, Vanderbilt University School of Medicine; "Nutrition at the Extremes of Life: Pediatric Nutrition", 1999, 2000

Osler Board Review and Continuing Medical Education Courses
Lectures in Pediatric Gastroenterology, 3-4 seminars annually, 1993-2002

Pediatric Pearls Conference - Columbus Children's Hospital
"New Concepts in Chronic Abdominal Pain", 2001

Pediatric Pearls, Columbus Children's Hospital
"Functional Abdominal Pain", 2002

Grand Round in Pediatrics, Columbus Children's Hospital
Research Ethics in Pediatrics, 2001

Grand Rounds in Pediatrics, Columbus Children's Hospital
"Inflammatory Diseases of the Esophagus", 2005

Human Development and Embryology, Department of Anatomy, OSU
"Development of the Gastrointestinal Tract"

PEER-REVIEWED PUBLICATIONS

1. Ghishan FK, Greene HL, Halter S, **Barnard JA** and Moran Jr. Noncirrhotic portal hypertension in congenital cytomegalovirus infection. *Hepatology* 4:684-686, 1984.

2. **Barnard JA**, Cotton R and Lutin W. Necrotizing enterocolitis: Variables associated with the severity of disease. *Am J Dis Child* 39:375-377, 1985.

3. **Barnard JA**, Ghishan FK and Wilson FA. Ontogenesis of taurocholate transport by rat ileal brush border membrane vesicles. *J Clin Invest* 75:869-873, 1985.

4. Will M, **Barnard JA**, Said HM and Ghishan FK. Fetal hydantoin syndrome: Inhibition of placental folic acid transport as a potential mechanism for fetal growth retardation in the rat. *Research Comm Chem Path Pharm* 48:91-98, 1985.

5. **Barnard JA**, Marshall GS, Neblett W, Gray G and Ghishan FK. Noncirrhotic portal fibrosis after Wilm's tumor therapy. *Gastroenterology* 90:1054-56, 1986.

6. **Barnard JA** and Ghishan FK. Methylprednisolone accelerates the ontogeny of sodium taurocholate cotransport in rat ileal brush border membranes. *J Lab Clin Med* 108:549-555, 1986.

PEER-REVIEWED PUBLICATIONS (CONTINUED)

7. **Barnard JA** and Ghishan FK. Taurocholate transport by human ileal brush border membrane vesicles. *Gastroenterology* 93:925-933, 1987.

8. **Barnard JA**, Thaxter S, Kikuchi K and Ghishan FK. Taurine transport by rat jejunum. *Am J Physiol* 254. (Gastrointest-Liver Physiol 17): G334-G338, 1988.

9. **Barnard JA**, Snyder P, Werner M, Greene HL and Edwards KM. Protein synthesis by HepG2 cells infected with influenza B virus. *Pediatr Res* 23:334-337, 1988.

10. **Barnard JA**, Beauchamp RD, Coffey RJ and Moses HL. Regulation of intestinal epithelial cell growth by transforming growth factor β. *Proc Natl Acad Sci USA* 86:1578-1582, 1989.

11. Beauchamp RD, **Barnard JA**, McCutchen CM, Cherner JA and Coffee RJ. Localization of TGFα and its receptor in gastric mucosal cells: Implications for a regulatory role in acid secretion and mucosal renewal. *J Clin Invest* 84:1017-1023, 1989.

12. Baliga BS, Borowitz SM and **Barnard JA**. Effects of EGF and PMA on the growth and proliferation of IEC-6 cells. *Biochemistry International* 19:1045-1056, 1989.

13. Baliga BS, Borowitz SM and **Barnard JA**. Modulation of EGF-receptors by phorbol ester in small intestinal crypt cells. *Biochemistry International* 20(1):161-168, 1990.

14. **Barnard JA** and Manci E. Idiopathic neonatal iron storage disease. *Gastroenterology* 101:1420-1427, 1991.

15. **Barnard JA**, Polk WH, Moses HL, and Coffey RJ. Transforming growth factor α in the normal gastrointestinal tract. *Am J Physiol: Cell Physiol* 261:C994-C1000, 1991.

16. Polk WH, Dempsey PJ, Russell WE, Brown PI, Beauchamp RD, **Barnard JA** and Coffey RJ, Jr. Increased production of transforming growth factor α following acute gastric mucosal injury. *Gastroenterology* 102:1467-1474, 1992.

17. **Barnard JA**, Warwick GJ and Gold LI. Localization of transforming growth factor (TGF)β1, TGFβ2 and TGFβ3 in the normal murine gastrointestinal tract. *Gastroenterology* 105:67-73, 1993.

18. Sacks AI, Acra SA, Dykes W, Polk DB, **Barnard JA**, Pietsch J and Ghishan FK. Intestinal Na^+/H^+ exchanger activity is upregulated by bowel resection in the weanling rat. *Pediatric Research* 33(3):215-220, 1993.

19. **Barnard JA** and Warwick GJ. Butyrate rapidly induces growth inhibition and differentiation in HT-29 cells *Cell Growth & Diff* 4:495-501, 1993.

PEER-REVIEWED PUBLICATIONS (CONTINUED)

20. Walker LS, Greene JW, Garber J, Horndasch RL, **Barnard JA**, Ghishan FK. Psychosocial factors in pediatric abdominal pain: Implications for assessment and treatment. *The Clinical Psychologist* 46:206-213, 1993.

21. Heusinkveld DC and **Barnard JA**. Colitic cystica profunda in a pediatric patient. *J. Pediatr Gastro Nutr* 18:395-398, 1994.

22. **Barnard JA**, Graves-Deal R, DuBois R, Cook P, Ramsey GW, Bishop PR, Damstrup L, Coffey RJ. Auto- and cross-induction within the mammalian epidermal growth factor-related peptide family. *J Biol Chem* 269 (36):22817-22822, 1994.

23. Sacks AI, Warwick GJ, and **Barnard JA**. Early proliferative events following proximal intestinal resection in the weanling rat. *J Pediatr Gastro Nutr* 21:158-164, 1995.

24. Ghishan FK, Knobel S, **Barnard JA** and Breyer M. Expression of a novel sodium-hydrogen exchanger in the gastrointestinal tract and kidney. *J Memb Biol* 144(3): 267-271, 1995.

25. Threadgill DW, Dlugosz AA, Hansen L, Tennenbaum T, Lichti U, Yee D, LeMantia C, Mourton T, Herrup K, Harris RC, **Barnard JA**, Yuspa SH, Coffey RJ, and Magnuson T. Targeted disruption of mouse EGF-receptor: Effect of genetic background on mutant phenotype. *Science* 269(5221):230-234, 1995.

26. Winesett MP, Ramsey GW and **Barnard JA**. Type II TGFβ receptor expression in intestinal cell lines and in the intestinal tract. *Carcinogenesis* 17:989-995, 1996

27. Winesett MP, Pietsch JB, and **Barnard JA**. Yersinia enterocolitica in a child with intussusception. *J Pediatr Gastro Nutr* 23(1): 77-80, 1996.

28. Acra SA, Bulus N, Bogatcheva G, Coffey RJ and **Barnard JA**. Increased intestinal epithelial proliferation in metallothioneine-transforming growth factor α transgenic mice. *Regulatory Peptides* 74:105-112, 1998.

29. Walker LS, Guite J, Duke M, **Barnard JA**, and Greene J. Recurrent abdominal pain: a precursor of irritable bowel syndrome in adolescents and young adults. *J Pediatrics* 132(6): 1010-1015, 1998.

30. Sizemore N, Cox AD, **Barnard JA**, Oldham SM, Reynolds ER, Der CJ, and Coffey RJ. Pharmacological inhibition of ras-transformed epithelial cell growth is linked to down-regulation of epidermal growth factor-related peptides. *Gastroenterology* 117:567-576, 1999.

31. Bulus N and **Barnard JA**. Heparin binding epidermal growth factor-like growth factor is a transforming growth factor β-regulated gene in intestinal epithelial cells. *Biochem*

Biophys Res Comm 264:808-812, 1999.

PEER-REVIEWED PUBLICATIONS (CONTINUED)

32. Matern D, Starzl TE, Arnaout W, **Barnard JA,** Bynon JS, Dhawan A, Emond J, Haagsma EB, Hug G, Lachaux A, Smit GP, Chen YT. Liver transplantation for glycogen storage disease types I, III, and IV. *Eur J Pediatr*. 158 Suppl 2:S43-8, 1999.

33. Bulus N, Sheng H-M, Sizemore N, Oldham SM, Barnett JV, Coffey RJ, Beauchamp RD and **Barnard JA**. Ras-mediated suppression of TGFβRII expression in intestinal epithelial cells involves a Raf-independent signaling. *Neoplasia* 2(4):357-364, 2000.

34. Hostetler, MA and **Barnard JA**. Removal of esophageal foreign bodies in the pediatric emergency department: Is ketamine an option? *American Journal of Emergency Medicine* 20:96-98, 2002.

35. Claar RL, Walker LS and **Barnard JA**. Children's knowledge, anticipatory anxiety, procedural distress, and recall of esophagogastroduodenoscopy. *J Pediatr Gastroenterology Nutr* 34(1):68-72, 2002.

36. Washington K, Greenson J, Montgomery E, Shyr Y, Crissinger K, Polk DB, **Barnard JA** and Lauwer G. Histopathology of ulcerative colitis in initial rectal biopsy in children. *Am J Surg Path* 26(11):1441-1449, 2002.

37. Jiang B, Zhang JS, Du J, Urrutia R, and **Barnard JA**. Growth inhibitory signaling by TGFβ is blocked in RAS-transformed intestinal epithelial cells at a post-receptor locus. *Cellular Signalling* 15:699–708, 2003.

38. Du J, Jiang B, Coffey RJ, and **Barnard JA**. Raf-1 and RhoA cooperate to transform intestinal epithelial cells and induce growth resistance to transforming growth factor beta. *Mol Cancer Res* 2: 233-241, 2004.

39. Murphy SJ, Doré JJ Jr, Edens M, Coffey RJ, **Barnard JA**, Mitchell H, Wilkes M and Leof EB. Differential trafficking of TGFβ receptors and ligand in polarized epithelial cells. *Mol Bio Cell* 15: 2852-2862, 2004.

40. Crandall WV, **Barnard JA**, Cohen MB, Colletti RB, Harnsberger JK, Hart MH, Hayes JR, Sherman PM, Smith LJ, NASPGHAN Clinical Practice Committee. Pediatric Gastroenterology Workforce Survey, 2003-2004: A Report of the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition. *J Pediatr Gastroenterol Nutr*, Apr:40(4): 397-405, 2005.

41. Du Jianguo, Jiang Bo, **Barnard JA**. Differential regulation of cyclooxygenase 2 in nontransformed and transformed intestinal epithelial cells. *Neoplasia*, Aug;7(8): 761-70, 2005.

42. Allen CE, Richards J, Muthusamy N, Auer H, Liu Y, Robinson ML, **Barnard JA**, Wu L-C. Disruption of ZAS3 in Mice Alters NF-κ and AP-1 DNA Binding and T-Cell

Development. *Gene Expression*, 14: 83-100, 2007.

PEER-REVIEWED PUBLICATIONS (CONTINUED)

43. Allen CE, Du J, Jiang B, Huang Q and **Barnard J**. Transformation by Oncogenic Ras Expands the Early Genomic Response to Transforming Growth Factor β in Intestinal Epithelial Cells. *Neoplasia* 10 (10): 1073-82, 2008.

44. Yang J, Chan CY, Jiang B, Yu X, Zhu G-Z, Chen Y, **Barnard J**, Mei W. hnRNP I inhibits Notch signaling and regulates intestinal epithelial homeostasis in the zebrafish. *PLoS Genetics* 5(2): e1000363. doi:10. 1000363, 2009.1371/journal.pgen.

45. Yakovich A, Huang Q, Du J, Jiang B, **Barnard J**. Vectorial TGFβ Signaling in Polarized Intestinal Epithelial Cells. *J Cell Phys* 224(2): 398-404, 2010.

46. Yakovich A, Jiang B, Allen CA, Du J, Wu L-C, , **Barnard J**. ZAS3 accentuates transforming growth factor beta signaling in epithelial cells. *Cell Signal.* 23(1) 105-113, 2011.

INVITED PUBLICATIONS, REVIEWS AND BOOK CHAPTERS

1. **Barnard JA**, Greene HL and Cotton R. Necrotizing enterocolitis. In: Nutritional adaptation of the gastrointestinal tract of the newborn (Norman Kretchmer and Alexandre Minkowski, eds), Raven Press, New York, Volume 3, pp. 107-128, 1983.

2. Greene, JW and **Barnard JA**. Recurrent abdominal pain in childhood and adolescence. *Journal of Continuing Education* 256-259, 1984.

3. **Barnard JA** and Ghishan FK. Chronic diarrhea in childhood. In: Pediatrics: A problem oriented approach. (Vipul N. Mankad, ed.), Medical Examination Publishing Company, Elsevier Science Publishing Co., Inc., New York, pp. 284-291, 1986.

4. **Barnard JA**, Bascom CC, Lyons RM, Sipes NJ and Moses, HL. Transforming growth factor β in the control of epidermal proliferation. *Am J Med Sci* 31:159-163. 1988.

5. **Barnard JA**, Lyons RM, and Moses HL. The cell biology of transforming growth factor β. *Biochimica Biophysica Acta* 1032:79-87, 1990.

6. Coffey RJ, Jr., Russell WE, and **Barnard JA**. Pharmacokinetics of TGFβ with emphasis on effects in liver and gut. *New York Acad Sci Ann* 593:285-291, 1990.

7. Moses HL, **Barnard JA**, Bascom CC, Beauchamp RD, Coffey RJ, Lyons RM, and Sipes NJ. Control of cell proliferation by transforming growth factors. Molecular mechanisms in cellular growth and differentiation (Anthony R. Bellve and Henry J. Vogel, editors), Academic Press Inc, pp 121-126, 1991.

8. Coffey RJ and **Barnard JA**. Understanding autocrine growth regulation. *West Med J* 155:189-190, 1991.

INVITED PUBLICATIONS, REVIEWS AND BOOK CHAPTERS (CONTINUED)

9. Barnard **JA** and Hazinski MF. Pediatric gastrointestinal disorders. In: Critical Care Nursing (Mary F. Hazenski, editor), Mosby, St. Louis, MO. 1992.

10. **Barnard JA**. Betacellulin. Newest addition to the epidermal growth factor family. *J Pediatr Gastroenterol Nutr* 17:343-344, 1993. (Selected Summary)

11. **Barnard JA** and Coffey RJ. Transforming growth factor β. In: Gut peptides: physiology, biochemistry and pathophysiology. (John Walsh and Graham Dockray, eds) Raven Press, New York, NY. 22:615-631, 1994.

12. **Barnard JA**, Beauchamp RD, Russell WE, DuBois RN and Coffey RJ. Epidermal growth factor- related peptides and their relevance to gastrointestinal pathophysiology. *Gastroenterology* 108:564-580, 1995.

13. Gangarosa LM, Dempsey PJ, Damstrup L, **Barnard JA** and Coffey RJ. Transforming growth factor- alpha. *Baillieres Clinical Gastroenterology* 10(1):49-63, 1996.

14. **Barnard JA**, Delzell JA, and Bulus NM. Short chain fatty acid regulation of intestinal gene expression. *Advances in Experimental Medicine and Biology* 422:137-144, 1997.

15. Pittman NS, and **Barnard JA**. Gastrointestinal endoscopic procedures in children. *Pediatric Annals* 26(4):218-224, 1997.

16. **Barnard JA**. Gastrointestinal disorders due to cow's milk consumption. *Pediatric Annals* 26(4):244- 250, 1997.

17. Wambach J, **Barnard JA**. SMAD4 germline mutations in juvenile polyposis coli. *J Pediatr Gastroenterol Nutr* 28:538-9, 1999. (Selected Summary)

18. Stutts JT, Washington K and **Barnard JA**. Cholestatic jaundice with skin desquamation in a 12-year- old girl. *J Pediatr* 134:649-653, 1999.

19. Polk, DB and **Barnard JA**. Hormones and growth factors in intestinal development. Development of the Gastrointestinal Tract (Ian R. Sanderson and W. Allan Walker, editors), B.C. Decker Inc. Publisher, Hamilton, ON, Canada, 1999.

20. Corredor J, Wambach J and **Barnard JA**. Gastrointestinal polyps in children: advances in molecular genetics, diagnosis and management. Journal of Pediatrics 138:621-628, 2001.

21. **Barnard JA**. Epidermal growth factor receptor blockade: an emerging therapeutic modality in clinical gastroenterology. Invited Editorial, Gastroenterology, 120:1872-1874, 2001.

INVITED PUBLICATIONS, REVIEWS AND BOOK CHAPTERS (CONTINUED)

22. **Barnard JA**. Keys to Writing a Competitive Grant. *J Pediatr Gastroenterology Nutr* 35:107-110, 2002.

23. Erdman SH and **Barnard JA**. Gastrointestinal polyps and polyposis syndromes in children. *Curr Opin Pediatr* 14:576-82, 2002.

24. Walker-Smith J, **Barnard J**, Bhutta Z, Heubi J, Reeves Z, Schmitz J. Chronic diarrhea and malabsorption (including short gut syndrome): Working Group Report of the First World Congress of Pediatric Gastroenterology, Hepatology, and Nutrition. *J Pediatr Gastroenterol Nutr*. 2002; 35 Suppl 2:S98-105.

25. **Barnard JA**. Peptide Growth Factors. *Gastrointestinal Cancers*. (Rustgi, AK, and Crawford J, eds.) Harcourt W.B. Saunders, Oxford, England, 33-54, 2003.

26. **Barnard JA**, Fine D. The HIPAA Privacy Rule and its impact on pediatric research. *J Pediatr Gastroenterol Nutr* 37: 527, 2003.

27. **Barnard JA**. Gastrointestinal polyps and polyp syndromes in adolescents. *Adolesc Med* 15(1):119-29, 2004.

28. Consensus Development Panel. National Institutes of Health Consensus Development Conference Statement on Celiac Disease, June 28-30, 2004. *Gastroenterology*. Apr; 128(4 Suppl 1):S1-9, 2005.

29. **Barnard JA**. Presentation of the 2004 Shwachman Award to Fayez K. Ghishan, MD. *J Pediatr Gastroenterol Nutr*. Jan;40(1): 20-1, 2005.

30. **Barnard JA** and McHugh KM. Growth Factors of the GI Tract. *Physiology of the Gastrointestinal Tract, Fourth Edition*. (Johnson, LR, ed.) Elsevier Inc., 2006.

31. Walker WA, Sherman P, Cohen M, **Barnard J**. State of Pediatric Gastroenterology, Hepatology, and Nutrition: 2006 and Beyond. *Gastroenterology* 132:434-436, 2007.

32. Cohen MB and **Barnard J**. NIH Consensus Conference Report. Frontiers in Celiac Disease. *Pediatr Adolesc Med.* (Fasano A, Troncone R, Branski D, eds), Karger Med & Scientific Publishers, Basel, Switzerland 12: 133-138, 2008.

33. Ferry GD, Balistreri W, **Barnard J.** Children's Digestive Health And Nutrition Foundation: Building On The Past - A Foundation For The Future. *J Pediatr Gastroenter Nutr* 50(2):230-3, 2010.

34. Walker WA, Sherman P, Shneider BL, Cohen M, Barnard J. State of research in pediatric gastroenterology, hepatology, and nutrition: 2010 and beyond. *Gastroenterology* 138(2):411-16, 2010.

LAY PRESS PUBLICATIONS – COLUMBUS DISPATCH

The news items below are published monthly to bimonthly on the science pages of the Columbus Dispatch as ~ 500 word columns on "Pediatric Research"

2006

September: Researchers Working to Solve Puzzle of Pediatric Cancer

October: Though Theory is Intriguing, We're Better Sanitary Than Sorry

November: Bacterial 'Slime' Might Stand in the Way of Antibiotics

2007

January 16th: Early Treatment of Autism Hinges on Genetic Discoveries

January 30th : Diet-based Celiac Disease Challenging for Patients

February: Problem of Premature Births is Growing in the United States

March: Intestinal Bacteria Might Play Part in Obesity Research

May: Unknowns of Rare Diseases Baffle Doctors, Families Alike

June: Early Years Can Pave Way for Heart Problems Later in Life

July: New Stem Cell Techniques Could Resolve Ethical Debate

August: Stomach Pain Usually Not Serious, But Can Be Chronic

September: Research Helping to Save Children with Heart Defects

October: More Children Need to Get Annual Flu Vaccinations

November: Physicians, Patients Do Not Always Adhere to Advances

December: RNA Cellular Switches Might Help Turn Off Diseases

2008

January: Cutbacks in Federal Grants Stymie Critical Research

February: Children Can Show Signs of Future Obesity Problems

March: Public Policy Can Lessen Effect of Doctor Shortage

LAY PRESS PUBLICATIONS – COLUMBUS DISPATCH (CONTINUED)

April: When Child Has Sore Throat, Test Before Using Antibiotics

May: Personalized Sequencing of Genes Holds Promise

June: Brain Imagery Might Show Why Teens Can Be So Moody

July: Growth Hormones Don't Taint Milk, Studies Suggest

August: Genetics Unlocks Part of Crohn's Disease Mystery

September: Measles on Rise as Parents Decide Against Vaccination

October: Mitochondrial Disease is Body's Own Energy Crisis

November: Children Should Double Up On Vitamin D, Research Says

December: Do Diet Soft Drinks Make People Want to Eat More?

2009

March: Concussions Can Cause Long-term Health Risks

May: It Takes Money to Make 'Big Science'

July: Large-scale Study Will be Worth Time, Cost

September: Studies Vital to Patient Survival

November: Teaching Biology Course Inspiring

2010

January: Biobanking Could Change Genetic Treatments

February: Asthma No Small Matter to Children

April: It's Time to Get Realistic About Our Obese Children

June: Ohio Leads Nation in Research Dollars

August: Gene Copy Number Key to Understanding Human Diversity

September: Experts Agree: Get Your Flu Shot

LAY PRESS PUBLICATIONS – COLUMBUS DISPATCH (CONTINUED)

October: Improved DNA Tests Will Push Medicine

December: Antibiotic Resistance Getting Worse, Spreading Globally

2011

January: Sham Study a Blight on Autism Research