

CURRICULUM VITAE

John Allman Barnard, M.D.

PERSONAL DATA

Business Address: Children's Research Institute
Room W502
700 Children's Drive
Columbus, OH 43205
(614) 722-2735 (phone)
(614) 722-3273 (fax)

E-mail: barnardj@pediatrics.ohio-state.edu

EDUCATION AND TRAINING

1973-1976 B.S. in Chemistry
University of South Alabama, Mobile, AL

1976-1980 Doctor of Medicine
University of Mississippi, Jackson, MS

1980-1981 Intern in Pediatrics
Vanderbilt Children's Hospital, Nashville, TN

1981-1983 Resident in Pediatrics
Vanderbilt Children's Hospital, Nashville, TN

1983-1986 Fellow in Pediatric Gastroenterology and Nutrition
Vanderbilt Children's Hospital, Nashville, TN

ACADEMIC APPOINTMENTS

July 1986- July 1987 Assistant Professor of Pediatrics
Division of Gastroenterology and Nutrition
University of South Alabama College of Medicine, Mobile, AL

August 1987- 1992 Assistant Professor of Pediatrics
Division of Gastroenterology and Nutrition
Vanderbilt University School of Medicine, Nashville, TN

1992-July 2000 Associate Professor of Pediatrics
Division of Gastroenterology and Nutrition
Vanderbilt University School of Medicine

1995-July 2000 Director, Division Pediatric Gastroenterology and Nutrition, Vanderbilt
University School of Medicine

July 2000-present Associate Director, Children's Research Institute

Division of Molecular Medicine
Division of Gastroenterology
Columbus Children's Hospital, Inc.
Columbus, OH

CERTIFICATION AND LICENSE

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

MEMBERSHIPS

1986-present	American Gastroenterological Association
1987-present	North American Society for Pediatric Gastroenterology and Nutrition
1987-1993	American Federation for Clinical Research
1991-1996	American Society for Parenteral and Enteral Nutrition
1991-present	Society for Pediatric Research
1997-present	Crohn's and Colitis Foundation of America

COMMITTEES

1987	Housestaff Recruitment Committee, University of South Alabama
1987-2000	Amos Christie Pediatric Alumni Society Steering Committee, Vanderbilt University
1989-1993	Housestaff Recruitment Committee, Vanderbilt University
1991-1993	American Society Parenteral Enteral Nutrition Abstract Committee
1992	NIH, Perinatal Emphasis Research Center (PERC); ad hoc study section
1993-2000	Resident's Curriculum Committee, Vanderbilt University
1994-2000	Abstract Reviewer, American Gastroenterological Association
1994-1995	Vice-President, Amos Christie Pediatric Alumni Society, Vanderbilt University
1995-2000	Medical Center East Executive Committee, Vanderbilt University

Curriculum Vitae, John A. Barnard, M.D.

1995-2000	Pediatric Research Working Group, Vanderbilt University
1995-1998	Pediatric Clinic Governance Committee, Vanderbilt University
1996	Abstract Reviewer, Society for Pediatric Research
1996-1998	President, Amos Christie Pediatric Alumni Society, Vanderbilt University
1998	Adolescent Medicine Director Search Committee, Vanderbilt University
1998-2000	Advisory Committee, East Tennessee Chapter, CCFA
1999	Nephrology Director Search Committee, Vanderbilt University
1999-present	Data Safety Monitoring Board, Cystic Fibrosis Foundation
1999-2000	OR Committee, New Children's Hospital Design Team, Vanderbilt University
1999-2000	Executive Committee, New Children's Hospital Design Team, Vanderbilt University
1999-2000	Research Committee, North American Society for Pediatric Gastroenterology and Nutrition
2000-present	Institutional Review Board, Columbus Children's Hospital

HONORS, APPOINTMENTS AND AWARDS

1976	Outstanding Graduating Chemistry Student University of South Alabama
1976	Summa Cum Laude University of South Alabama
1980	Alpha Omega Alpha University of Mississippi School of Medicine
1985	Young Investigator Award Southern Society for Pediatric Research
1987-1997	Investigator, Clinical Nutrition Research Unit, Vanderbilt University School of Medicine
1988-1991	American Gastroenterological Association/Pharmacia Scholar
1990	North American Society for Pediatric Gastroenterology and Nutrition Young Investigator Award
1995-1997	Associate Director, Clinical Nutrition Research Unit
1997-2000	Investigator, Vanderbilt Ingram Cancer Center, Vanderbilt University School of Medicine
2000	"Lifetime Achievement Award" for outstanding service and leadership to the

Vanderbilt University Pediatric Residency Program

FUNDING AS PRINCIPAL INVESTIGATOR AND ALL CURRENT SUPPORT

1983-1986	National Research Service Award, NIH #AM07083
1985-1986	Clinical Nutrition Research Unit Pilot Project, AM26657-PPL8 "Development of Amino Acid Transport" Total Costs: \$ 19,500
1987-1989	Clinical Nutrition Research Unit Pilot Project and New Investigator "Regulation of Intestinal Epithelial Cell Growth by TGF β " Total costs: \$100,000
1988-1991	American Gastroenterological Association/Pharmacia Scholar Award "Regulation of Growth and Differentiation of the Enterocyte" Total costs: \$30,000
1989-1994	National Institute of Diabetes and Digestive and Kidney Diseases 1K08 DK01893 (Clinical Investigator Award) "Role of Transforming Growth Factors in the Intestine" Total costs: \$429,410
1994-1995	Clinical Nutrition Research Unit Pilot Project Award "Induction of Intestinal Gene Expression by Butyrate" Total costs: \$30,000
1994-1996	American Institute for Cancer Research Investigator Award "Regulation of Colonocyte Growth and Differentiation by Butyrate" "Total costs: \$110,000
1996-1999	National Institute of Diabetes and Digestive and Kidney Disease RO1 DK40637 "Regulation of Intestinal Epithelial Growth by EGF-related Peptides" Total Costs: \$539,361
1999-2000	Vanderbilt-Ingram Cancer Center Pilot Project "Regulation of TGF β Receptors in Intestinal Cells" Total costs: \$30,000
7/1/2000-6/30/2005	National Institute of Diabetes and Digestive and Kidney 1RO1DK/CA57128 "TGF β Regulation of Intestinal Epithelial Cells" Total costs: \$1,512,000

NATIONAL INVITED RESEARCH AND CLINICAL PRESENTATIONS

1992	University of Mississippi "New Developments in Pediatric Gastroenterology"
1993	University of Cincinnati "Regulation of Intestinal Epithelial Growth by TGF β "
1993	University of Missouri Health Sciences Center

	"New Developments in Inflammatory Bowel Disease"
1993	University of Tennessee, Chattanooga Symposium on Common Problems in Pediatrics "Evaluating Chronic Diarrhea in Children"
1994	University of Iowa "Regulation of Intestinal Epithelial Growth by EGF-related peptides"
1996	American Institute for Cancer Research "Regulation of Intestinal Proliferation by Short Chain Fatty Acids"
1997	University of Mississippi " <i>Helicobacter Pylori</i> Infection in Children"
1997	Children's Hospital of Philadelphia "Regulation of TGF β Receptor Expression by Oncogenic Ras"
1997	Guest Editor, "Common Gastrointestinal Problems". <i>Pediatric Annals</i>
1998	New York University, Department of Pediatrics "New Developments in Intestinal Polyposis Syndromes"
1998	NASPGN: Meet the Professor Breakfast "Growth Factor Regulation of Intestinal Epithelial Growth"
1999	University of Illinois in Peoria "New Insights into Recurrent Abdominal Pain"
1999	South Carolina Chapter of the American Academy of Pediatrics "What is New in Pediatric Gastroenterology?" "Neonatal Cholestasis" "Practical Approach to Constipation"
2000	Children's Research Institute, Children's Hospital, Columbus, OH "Regulation in Intestinal Epithelial Growth by TGF β "

ACADEMIC TEACHING AND MENTORING ACTIVITIES

- ***Clinical Teaching and Teaching Awards***

Teaching 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 per year)

Teaching Physician, Pediatric Gastroenterology Nutrition Rotation (resident and medical student teaching; three to five months per year) (1987-2000)

"Lifetime Achievement Award", Awarded annually by the residency program to a faculty member exemplifying outstanding service and leadership to the Vanderbilt Pediatric Residency Program (2000)

- ***Mentoring***

Curriculum Vitae, John A. Barnard, M.D.

Pediatric Resident Faculty Advisor	(1990, 1992, 1994, 1996, 2000)
Pediatric Resident Career Day	"Academic Careers in Pediatrics", 1993-1999
Academic Career Day	"Is Academia Right for You?", 2000
Resident Grand Rounds Mentor	Terry Zuerlein, M.D. "Peptic Ulcer Disease", 1988 Brett Wilson, M.D. "Perspectives on Pediatric Parasites", 1990 Marlene Daher, M.D. "Chronic Active Hepatitis", 1992 Jamie Roberts, M.D. "Peptic Disease in Children", 1993 Jamie Wheeler, M.D. "Celiac Disease", 1994 Regan Logan, M.D. "Helicobacter Pylori", 1997 Kelly Bennie, M.D. "Hirschprung's Disease", 1997 Anne Ethier, M.D. "Hyperlipidemia in Children", 1999
Research and Clinical 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) Michele Winesett, M.D. Fellow in Gastroenterology and Nutrition (1993-1996) John Stutts, M.D. Fellow in Gastroenterology and Nutrition (1997-current) Winner, Functional Brain/Gut Group Young Investigator Award for Clinical Research, American Gastroenterological Association Lauren Peters and Jeffrey Jorgensen Mentor, IBR research rotation for first year medical students (2000)
Clinical Mentoring	Brian Riedel, M.D. (1987-1989), Salik Taufiq, M.D. (1992-1995), Sari Acra, M.D. (1994-1997), Greg Kaiser, M.D. (1995-1998), Julissa Corredor, M.D. (1999-current); Fellows in Gastroenterology and Nutrition Kim Isenberg, PNP (1998); Lacey Patton, PNP (1999); Susan Mestre, PNP (1999) Pediatric Nurse Practitioner Students, two month outpatient rotation; Vanderbilt University School of Medicine

• **Formal Lectures and Presentations***

- Grand Rounds in Pediatrics, University of South Alabama, Mobile Alabama
"Parenteral Nutrition", 1987
- Discussant, Clinicopathological Conference, Department of Pathology, University of South Alabama, 1988
- Symposium on Pediatric Gastroenterology, Vanderbilt University School of Medicine
"Recent Progress in Inflammatory Bowel Disease", 1989
- Grand Rounds in Pediatrics, Vanderbilt University School of Medicine
"New Developments in Pediatric Gastroenterology", 1989

Curriculum Vitae, John A. Barnard, M.D.

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

Grand Rounds in Pediatrics, University of Tennessee in Chattanooga
"Constipation in Pediatrics", 1991

Pediatric Resident Teaching Conference, Vanderbilt University School of Medicine
"Metabolic Liver Disease", 1991

Molecular Basis for Disease, 2nd year elective, Vanderbilt University School of Medicine
"α-1-Antitrypsin Deficiency", 1992

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

Vanderbilt University School of Nursing, Neonatal Nurse Practitioner Core Lecture Series
"Neonatal Cholestasis", 1992

Grand Rounds in Pediatrics, University of Tennessee in Chattanooga
"Pancreatitis in Children", 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

Gastroenterology Division Research Conference, Department of Medicine, Vanderbilt University
"Short Bowel Syndrome" 1992

Seminars in Neonatology, 1992
"Growth Factors and Growth Regulation"
"Fat Digestion in the Neonatal Period"
"Bile Salt Metabolism"

Resident Teaching Conference, 1993
"Evaluation of Rectal Bleeding in Children"

Saint Aquinas School of Nursing, Nashville, TN, 1994
"Fluid and Electrolytes in Pediatrics"
"Gastrointestinal Problems in Pediatrics"
"Enteral Feeding in Pediatrics"

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

Pediatric Resident Teaching Conference, Vanderbilt University School of Medicine
"Evaluation of Vomiting" 1995

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

Curriculum Vitae, John A. Barnard, M.D.

Cumberland Pediatric Association, Nashville, TN

"Acute Appendicitis, the Medical Perspective", 1996

Grand Rounds in Pediatrics, Vanderbilt University School of Medicine

"New Developments in Intestinal Polyposis Syndromes", 1998

Amos Christie Pediatric Alumni Society, Nashville, TN

"What's New in Pediatric Gastroenterology", 1998

Pediatric Resident Teaching Conference, Vanderbilt University School of Medicine

"Evaluation of Management of Pediatric Constipation", 1999

Pediatric Resident Teaching Conference, Vanderbilt University School of Medicine

"Infant Formulas", 1999

Nutrition Course, 1st year medical students, Vanderbilt University School of Medicine

"Nutrition at the Extremes of Life: Pediatric Nutrition", 1999, 2000

Pediatric Resident Teaching Conference

"Liver Function Tests in Pediatrics", 2000

Osler Board Review and Continuing Medical Education Courses

Lectures in Pediatric Gastroenterology, 3-4 seminars annually, 1993-current

"Jaundice", "Acute and Chronic Diarrhea"

"Acute and Chronic Abdominal Pain", "Nutrition in Pediatrics", "Gastroenterology Case Studies"

Departmental Faculty Research Conference, Vanderbilt Department of Pediatrics

Annual research presentation, 1987-present

Pediatric Resident Teaching Conference

"Common Problems in Pediatric Gastroenterology", 2000

Pediatric Resident Teaching Conference

"Chronic Diarrhea in Infants and Children", 2000

* duplicate resident teaching conferences are not listed

RESEARCH PUBLICATIONS

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. Ghishan FK, Greene HL, Halter S, **Barnard JA** and Moran Jr: Noncirrhotic portal hypertension in congenital cytomegalovirus infection. *Hepatology* 4:684-686, 1984.
3. Greene, JW and **Barnard JA**: Recurrent abdominal pain in childhood and adolescence. *Journal of Continuing Education* 256-259, 1984.
4. **Barnard JA**, Cotton R and Lutin W: Necrotizing enterocolitis: Variables associated with the severity of disease. *Am J Dis Child* 39:375-377, 1985.
5. **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.

Curriculum Vitae, John A. Barnard, M.D.

6. 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.
7. **Barnard JA**, Marshall GS, Neblett W, Gray G and Ghishan FK: Noncirrhotic portal fibrosis after Wilm's tumor therapy. *Gastroenterology* 90:1054-56, 1986.
8. **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.
9. **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.
10. **Barnard JA** and Ghishan FK: Taurocholate transport by human ileal brush border membrane vesicles. *Gastroenterology* 93:925-933, 1987.
11. **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.
12. **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.
13. **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.
14. **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.
15. Beauchamp RD, **Barnard JA**, McCutchen CM, Cherner JA and Coffee RJ: Localization of TGF α 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.
16. 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.
17. 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.
18. Barnard JA, Lyons RM, and Moses HL: The cell biology of transforming growth factor β . *Biochimica Biophysica Acta* 1032:79-87, 1990.
19. Coffey RJ, Jr., Russell WE, and **Barnard JA**: Pharmacokinetics of TGF β with emphasis on effects in liver and gut. *New York Acad Sci Ann* 593:285-291, 1990.
20. **Barnard JA** and Mancini E: Idiopathic neonatal iron storage disease. *Gastroenterology* 101:1420-1427, 1991.
21. **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.
22. 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.

Curriculum Vitae, John A. Barnard, M.D.

23. Coffey RJ and **Barnard JA**: Understanding autocrine growth regulation. *West Med J* 155:189-190, 1991.
24. 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.
25. **Barnard JA** and Hazinski MF: Pediatric gastrointestinal disorders. In: Critical Care Nursing (Mary F. Hazenski, editor), Mosby, St. Louis, MO. 1992.
26. **Barnard JA**, Warwick GJ and Gold LI: Localization of transforming growth factor (TGF) β 1, TGF β 2 and TGF β 3 in the normal murine gastrointestinal tract. *Gastroenterology* 105:67-73, 1993.
27. 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.
28. **Barnard JA** and Warwick GJ: Butyrate rapidly induces growth inhibition and differentiation in HT-29 cells *Cell Growth & Diff* 4:495-501, 1993.
29. **Barnard JA**: Betacellulin: Newest addition to the epidermal growth factor family. *J Pediatr Gastroenterol Nutr* 17:343-344, 1993. (Selected Summary)
30. 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.
31. **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.
32. Heusinkveld DC and **Barnard JA**: Colitic cystica profunda in a pediatric patient. *J. Pediatr Gastro Nutr* 18:395-398, 1994.
33. **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.
34. 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.
35. 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.
36. 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.
37. **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.
38. Gangarosa LM, Dempsey PJ, Damstrup L, **Barnard JA**, and Coffey RJ. Transforming growth factor-alpha. *Baillieres Clinical Gastroenterology* 10(1):49-63, 1996.
39. Winesett MP, Ramsey GW and **Barnard JA**: Type II TGF β receptor expression in intestinal cell lines and in the intestinal tract. *Carcinogenesis* 17:989-995, 1996
40. Winesett MP, Pietsch JB, and **Barnard JA**: Yersinia enterocolitica in a child with intussusception. *J Pediatr Gastro Nutr* 23(1): 77-80, 1996.

41. **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.
42. Pittman NS, and **Barnard JA**. Gastrointestinal endoscopic procedures in children. *Pediatric Annals* 26(4):218-224, 1997.
43. **Barnard JA**. Gastrointestinal disorders due to cow's milk consumption. *Pediatric Annals* 26(4):244-250, 1997.
44. 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.
45. 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.
46. Wambach J, Barnard J. SMAD4 germline mutations in juvenile polyposis coli. *J Pediatr Gastroenterol Nutr.* 1999;28:538-9. (Selected Summary)
47. Stutts JT, Washington K and **Barnard JA**: Cholestatic jaundice with skin desquamation in a 12-year-old girl. *J Pediatr* 134:649-653, 1999.
48. 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.
49. Bulus N and **Barnard J**. 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.
50. 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.
51. Matern D, Starzl TE, Arnaout W, **Barnard J**, 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.
52. Bulus N, Sheng H-M, Sizemore N, Oldham SM, Barnett JV, Coffey RJ, Beauchamp RD and **Barnard JA**. Ras-mediated suppression of TGF β RII expression in intestinal epithelial cells involves a Raf-independent signaling. In press, *Neoplasia*.
53. Corredor J, Wambach J, **Barnard JA**. Recent advances in the biology of gastrointestinal polyps in children. (Submitted)
54. Stutts JT, Guite JW, Van Slyke D, Walker LS, Greene JW, Washington K, Lamps L, Meredith S, **Barnard JA**. Inter-observer reliability and correlation of endoscopic and histologic findings in children with recurrent abdominal pain. (Submitted).

ABSTRACTS PRESENTED AT NATIONAL MEETINGS

1. **Barnard JA**, Ghishan FK and Wilson FA: Ontogenesis of ileal taurocholate transport in rat brush border membrane vesicles. (Presented at the American Gastroenterological Association; May, 1984). *Gastroenterology* 86(5):1020, 1984.
2. **Barnard JA** and Ghishan FK: Methylprednisolone accelerates the maturation of sodium taurocholate cotransport in ileal brush border membranes. (Presented at the Southern Society for Pediatric Research, January 1985). *Clinical Research* 32:883A, 1985.
3. **Barnard JA**, Ghishan FK and Said HM: pH mediated changes in trihydroxy-bile salt transport in brush border membranes.

- Gastroenterology* 88(5):1316, 1985.
4. **Barnard JA**, Snyder P, Werner M, Greene HL and Edwards KM: Inhibition of plasma protein synthesis in hepatoma cells infected with influenza virus. (Presented at the Society for Pediatric Research; May 1986). *Pediatr Res* 20:234A, 1986.
 5. **Barnard JA** and Ghishan FK: Taurocholate transport by human ileal brush border membrane vesicles. (Presented at the American Gastroenterological Association; May, 1986). *Gastroenterology* 90:1336, 1986.
 6. **Barnard JA**, Thaxter S, Ghishan FK: Taurine transport by rat jejunal brush border membrane vesicles. (Presented at the Society for Pediatric Research; May, 1987). *Pediatr Res* 21:263A, 1987.
 7. **Barnard JA** and Gremse DA: Ontogeny of Na⁺/H⁺ exchange in rabbit jejunal brush border membrane vesicles. (Presented at the American Gastroenterological Association - 1987). *Gastroenterology* 92:1308, 1987.
 8. **Barnard JA** and Beauchamp RD, Coffey RJ and Moses HL: Differential expression and autoinduction of transforming growth factor β in rat intestinal epithelial cells. (Presented at the American Gastroenterological Association, May, 1988). *Gastroenterology* 94(2):A23, 1988.
 9. **Barnard JA**, Coffey RJ, Beauchamp RD and Moses HL: Differential expression of transforming growth factor β in the jejunal epithelium. (Presented at the American Gastroenterological Association, May, 1989). *Gastroenterology* 96(2):A27, 1989.
 10. Beauchamp RD, **Barnard JA**, McCutchen CM, Cherner JA, Coffey RJ: Expression of transforming growth factor β and its receptor in mammalian gastric mucosa. (Presented at the American Gastroenterological Association, 1989). *Gastroenterology* 96:A34, 1989.
 11. Polk WH, Beauchamp RD, **Barnard JA**, Coffey RJ: Induction of transforming growth factor β messenger RNA in rat gastric mucosa following taurocholate-induced acute injury. (Presented at the American Gastroenterological Association, 1989). *Gastroenterology* 96:A395, 1989.
 12. **Barnard JA**, Coffey RJ, Pelton RW and Moses HL. Distribution of transforming growth factor β (TGF β) mRNA and protein in the small intestine. (Presented at the American Gastroenterological Association, May 1990). *Gastroenterology* 98(2):A483, 1990.
 13. Polk WH, Rifkin J, Beachamp RD, **Barnard JA**, and Coffey RJ: Redistribution of transforming growth factor α in rat gastric mucosa following acute injury. (Presented at the American Gastroenterological Association, May 1990). *Gastroenterology* 98(2):A107, 1990.
 14. Bundz S, Polk WH, **Barnard JA**, Rifkin J, and Coffey RJ: Effect of fasting and refeeding on transforming growth factor β production in the rat small intestine. (Presented at the American Gastroenterological Association, San Antonio, May 1990). *Gastroenterology* 98(2):A652, 1990.
 15. Sacks A, Acra S, Dykes W, Polk DB, **Barnard JA**, and Ghishan FK: The ileal Na⁺/H⁺ exchanger activity is upregulated by small intestinal resection in the weanling rat. (Presented at the American Gastroenterological Association, May 1991). *Gastroenterology* 100(5):A701, 1991.
 16. **Barnard JA** and Warwick G: Sodium butyrate rapidly induces "enterocyte-like" differentiation and growth inhibition of HT-29 cells. (Presented at the American Gastroenterological Association, 1992). *Gastroenterology* 102:A199, 1992.
 17. Bishop PR, Warwick GJ, Ghishan FK and **Barnard JA**: Sodium butyrate upregulates Na⁺/H⁺ exchanger mRNA and transport activity in Caco-2 cells. (Presented at the American Gastroenterological Association, 1992). *Gastroenterology* 102:A201, 1992.
 18. Sacks AI, Warwick GJ and **Barnard JA**: Early proliferative events following proximal intestinal resection in the rat. (Presented - American Gastroenterological Association, 1992). *Gastroenterology* 102:A240, 1992.

19. **Barnard JA**, Graves-Deal R, DuBois RN and Coffey RJ: Differential expression and regulation of multiple epidermal growth factor family members in small intestinal cell lines. (Presented at the American Gastroenterological Association, 1993). *Gastroenterology* 104:A812, 1993.
20. Winesett MP, Ramsey GW and **Barnard JA**: Expression of the type II transforming growth factor β receptor in the intestine. (Presented at the American Gastroenterological Association, May 1994). *Gastroenterology* 106:A640, 1994.
21. Acra SA, Bogatcheva G., Coffey RJ, and **Barnard JA**: Unregulated overexpression of TGF β in transgenic mice markedly increases duodenal proliferation and obliterates the proliferative response to refeeding. Presented at the American Gastroenterological Association, May 1995, *Gastroenterology* 110(4):A788.
22. **Barnard JA** and Coffey RJ: Functional significance of inductive events within the EGF-related peptide family. Presented at the American Gastroenterological Association, May 1996, *Gastroenterology* 112(4):A1130.
23. Peeler MO, Delzell JA, **Barnard JA**, and Beauchamp RD: Relative insensitivity of H-Ras-transformed rat intestinal epithelial cells to transforming growth factor β growth inhibition through loss of cyclin D1 regulation. (Presented at the American Gastroenterological Association, May 1997) *Gastroenterology* 112(4):A897.
24. Bulus N, Sizemore N, Peterson M, Beauchamp RD, and **Barnard JA**. Ras-mediated suppression of TGF β RII occurs by a Raf independent pathway. (Presented at the American Gastroenterological Association, May 1998) *Gastroenterology* 114(4):A868, 1998.
25. Stutts JT, Walker LS, Greene JW, Guite JW, Van Slyke DA, Washington K, Lamps L, **Barnard JA**. Relation of pain intensity ratings with endoscopic findings and use of passive pain coping strategies in children with recurrent abdominal pain. (Presented at the North American Society for Pediatric Gastroenterology and Nutrition) *J Pediatr Gastroenterol Nutr* 27:470, 1998.
26. **Barnard JA** and Bulus N. Heparin-binding EGF (HB-EGF) is a transforming growth factor β (TGF β)-regulated immediate early gene in intestinal epithelial cells. (Presented at the American Gastroenterological Association) *Gastroenterology* 116(4):G2365, 1999.
27. Stutts JT, Guite JW, Van Slyke DA, Walker LS, Greene JW, Washington K, Lamps L, **Barnard JA**. Pain intensity in children with recurrent abdominal pain correlates with depression but not endoscopic findings. (Presented at the North American Society for Pediatric Gastroenterology and Nutrition, Denver CO) *J Pediatr Gastroenterol Nutr* 29: 498, 1999.
28. **Barnard JA** and Bulus N. Regulation of TGF β receptors by oncogenic Ras. Keystone Symposium, Molecular Mechanisms of Gastrointestinal Cancer, Keystone CO, 1999.
29. Van Slyke DA, Guite JW, Stutts JT, Walker LS, Greene JW and **Barnard JA**. Psychological and biological correlates of recurrent abdominal pain. (Presented at the Florida Conference on Child Health Psychology, Gainesville, FL. 1999.)
30. Bulus N, Saha D, Beauchamp RD, and **Barnard JA**. Resistance to transforming growth factor β in Ras -transformed cells occurs at a post-receptor level. (Honored as Poster Of Distinction, American Gastroenterological Association, May, 2000)