

## CURRICULUM VITAE

**DATE PREPARED:** March 26, 2007

### **PART I: General Information**

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**Place of Birth:** Savanna, Georgia

### **Education:**

1982	B.S. (Major: Biology, Minor: Chemistry and Psychology), Summa cum laude, Midwestern State University
1986	M.D., Vanderbilt University School of Medicine
1998	PH.D., Harvard University

### **Postdoctoral Training:**

1986-1987	Intern , Pediatrics, Yale-New Haven Hospital, Yale University School of Medicine
1987-1988	Resident, Pediatrics, Yale-New Haven Hospital, Yale University School of Medicine
1988-1989	Intern, Surgery, New England Deaconess Hospital, Harvard Medical School
1989-1991	Resident, Surgery, New England Deaconess Hospital, Harvard Medical School
1991-1992	Research Fellow, Molecular Biology, Dana Farber Cancer Institute, Harvard Medical School
1992-1996	Graduate Student, Virology/Biochemistry, School of Arts and Sciences and the Division of Medical Sciences, Harvard University
1993-1996	Thesis Laboratory, Department of Medicine, Massachusetts General Hospital
1997-1998	Resident, Surgery, Beth Israel Deaconess Hospital, Harvard Medical School
1998-1999	Chief Resident, Surgery, Beth Israel Deaconess Hospital, Harvard Medical School

- 1999-2000 Associate Chief Resident, Pediatric Surgery, Children's Hospital Boston, Harvard Medical School  
2000-2001 Chief Resident , Pediatric Surgery, Children's Hospital Boston, Harvard Medical School

**Licensure and Certification:**

- 1987 Diplomate, National Board of Medical Examiners  
1991 Massachusetts Medical License Number  
2000 Diplomate, American Board of Surgery  
2002 Diplomate, American Board of Surgery, Pediatric Surgery

**Academic Appointments:**

- 1988-1991 Clinical Fellow in Surgery, Harvard Medical School, Boston, MA  
1991-1992 Research Fellow in Surgery, Dana Farber Cancer Institute, Boston, MA  
1996-2001 Clinical Fellow in Surgery, Harvard Medical School, Boston, MA  
2001-2005 Instructor in Surgery, Harvard Medical School, Boston, MA  
2005-present Assistant Professor, Harvard Medical School

**Hospital or Affiliated Institution Appointments:**

- 07/91-06/98 Attending Physician, Lawrence General Hospital  
07/01- present Research Associate, Children's Hospital  
01/02-12/05 Staff Surgeon, South Shore Hospital  
07/02- present Staff Surgeon, Children's Hospital  
07/03- present Assistant Director of Pediatric Surgery Fellowship Program, Children's Hospital  
07/05- present Staff Surgeon, Lawrence General Hospital

**Major Committee Assignments:**

- 2002- present Graduate medical education committee, Member, Children's Hospital  
2002-2003 Resident competency task force, Member, Children's Hospital  
2002-2004 Task force on refusal of blood products, Member, Children's Hospital  
2002- present Operating room safety committee, Member, Children's Hospital  
2006 Intellectual property strategy committee, Member, Children's Hospital

**Professional Societies:**

- 2000- present Massachusetts Medical Society, Member  
2000- present American College of Surgeons, Member  
2003- present American Society for Parenteral and Enteral Nutrition, Member  
2004- present American College of Surgeons, Fellow  
2005- present New England Surgical Society, Member

2007- present Specialty Fellowship in the American Academy of Pediatrics, Member

**Editorial Boards:**

2003- present Ad-Hoc Reviewer, Cancer Research  
2003- present Ad-Hoc Reviewer, Journal of Surgical Research  
2005- present Ad-Hoc Reviewer, Biomaterials  
2006- present Ad-Hoc Reviewer, Hepatology  
2006- present Ad-Hoc Reviewer, British Journal of Nutrition  
2006- present Ad-Hoc Reviewer, Clinical Cancer Research  
2006- present Ad-Hoc Reviewer, Gut  
2006- present Ad-Hoc Reviewer, Journal of Perinatology

**Awards and Honors:**

1978            Gamma Sigma Epsilon, Chemistry Honor Society  
1980            Alpha Chi, Academic Honor Society  
1980            Psi Chi, Psychology Honor Society  
1980            Beta Beta Beta , Biology Honor Society  
1981            Wichita County Medical Society Scholarship, MSU  
1981            Sloan Biology Scholarship, MSU  
1981            Williams-Dwyer Scholarship, MSU  
1981            Rotary Club Outstanding Student, MSU  
1981            Shanor Leadership Scholarship, MSU  
1981            Mortar Board, National Academic Honor Society  
1982            Biology achievement award, MSU  
1999            Distinguished Alumnus School of Math and Sciences, MSU  
2001            Outstanding Biology and Life Sciences Graduate, MSU  
2001            Sidney Farber House Staff Award, Children's Hospital Boston  
2001            Distinguished Alumnus(Math and Sciences), MSU  
2002            Arthur Beyer Distinguished Alumnus Award, MSU  
2003            Paper of the year, Controlled Release Society

**Awards won by research fellows:**

2005            Research Grant awarded to Dr. Ian Alwayn to study the prevention of steatosis utilizing matrix metalloproteinase inhibitors.  
2005            American Philosophical Society Research Grant awarded to Dr. Sang Lee to study the prevention of parenteral nutrition induced liver injury.  
2005            "Reversal of Parenteral Nutrition Associated Cholestasis in Two Infants Using Intravenous Fish Oil," Poster of distinction awarded to Dr. Sang Lee, Massachusetts Chapter of American College of Surgeons

- 2006 "VEGF accelerated compensatory lung growth." Resident Award, Best Basic Science Paper won by Dr. Sang Lee. Presented at the New England Surgical Society, Groton, CT.
- 2006 Resident Research Award, Best research paper won by Dr. Sang Lee. Presented at the Beth-Israel Deaconess Hospital, Boston, MA
- 2006 "Prevention of Intra-abdominal Adhesions with Angiogenesis Inhibition." Poster of distinction awarded to Dr. Sang Lee, Massachusetts Chapter of American College of Surgeons.
- 2006 "Prevention of intra-abdominal adhesions with angiogenesis inhibition." Poster of distinction awarded to Dr. Sendia Kim Massachusetts Chapter of American College of Surgeons.
- 2006 "Matrix Metalloproteinases (MMPs) Activity After Live Doner Adult Liver Transplantation (LDALT)." 3<sup>rd</sup> Place Presentation awarded to Dr. Jennifer Verbesey, Massachusetts Chapter of American College of Surgeons.

## **Part II: Research, Teaching, and Clinical Contributions**

### **1. Local contributions**

#### **a. Local Invited Presentations**

##### **Grand Rounds**

- 1999 "Year In Review," Surgical, Children's Hospital Boston
- 2002 "Prevention of TPN Liver Injury," Surgical , Massachusetts General Hospital
- 2003 "Prevention of TPN Hepatotoxicity", Surgical, Children's Hospital Boston
- 2005 "Prevention and Treatment of Parenteral Nutrition Associated Liver Injury: A New Approach," Surgical, Children's Hospital Boston
- 2006 "Treatment of Parenteral Nutrition Associated Liver Disease," Neonatology, Beth Israel Deaconess Hospital
- 2006 "Parenteral Nutrition Liver Injury," Neonatology, Children's Hospital Boston

## **Lecture**

- 2005 "Lipid Issues in Newborns," Enhancing the Safety of Parenteral and Enteral Nutrition, Harvard Medical School Continuing Education
- 2006 "Prevention and Treatment of Parenteral Nutrition Associated Liver Disease," Longwood Nutrition Conference, Harvard Medical School

## **Presentation**

- 2007 "Prevention and Treatment of PN Associated Liver Disease", Presentation to Surgical ICU nurses, Children's Hospital Boston

## **Seminar**

- 2003 "Angiogenesis and Liver Regeneration", Gastroenterology Research Conference, Children's Hospital Boston
- 2005 "Prevention and Treatment of Parenteral Nutrition Liver injury," Gastroenterology Research Conference, Children's Hospital Boston

## **2. Regional, national, or international contributions**

### **a. Invited Presentations**

#### **Regional**

- 2003 "Managing Sick Neonates: The Surgeon's Perspective", UMASS, Worcester, MA [*Anesthesia Grand Rounds*]
- 2005 "Early Management of the Surgical Newborn", Holy Family/Lawrence General Hospital, Lawrence, MA [*Pediatric Grand Rounds*]

#### **National**

- 2004 "Pediatric Surgery and Research", Iowa Park Chamber of Commerce [*Presentation*]
- 2005 "Omega 3 Fatty Acids: Clinical and Laboratory Research", American Society for Parenteral and Enteral Nutrition, Orlando, FL [*Invited Lecture*]

2006 "Treatment of Parenteral Nutrition Associated Liver Injury", GI and nutrition, neonatology, Children's National Medical Center [*Invited Lecture*]

### **Part III: Bibliography**

#### **Original Articles**

1. Barnard GF, Staniunas RJ, Mori M, Puder M, Jessup MJ, Steele GD, Chen LB. Gastric and hepatocellular carcinomas do not overexpress the same ribosomal protein messenger RNAs as colonic carcinoma. *Cancer Res.* 1993;53(17):4048-52.
2. Puder M, Barnard GF, Staniunas RJ, Steele GD, Chen LB. Nucleotide and deduced amino acid sequence of human ribosomal protein L18. *Biochim Biophys Acta.* 1993;1216(1):134-6.
3. Barnard GF, Puder M, Begum NA, Chen LB. PCR product sequencing with [ $\alpha$ -33P] and [ $\alpha$ -32P]dATP. *Biotechniques.* 1994;16(4):572-3.
4. Barnard GF, Staniunas RJ, Puder M, Steele GD, Chen LB. Human ribosomal protein L37 has motifs predicting serine/threonine phosphorylation and a zinc-finger domain. *Biochim Biophys Acta.* 1994;1218(3):425-8.
5. Barnard GF, Mori M, Staniunas RJ, Begum NA, Bao S, Puder M, Cobb J, Redman KL, Steele GD, Chen LB. Ubiquitin fusion proteins are overexpressed in colon cancer but not in gastric cancer. *Biochim Biophys Acta.* 1995;1272(3):147-53.
6. Kim J, Puder M, Soberman RJ. Joining of DNA fragments by repeated cycles of denaturation, annealing and extension. *Biotechniques.* 1996;20(6):954-5.
7. Puder M, Soberman RJ. Glutathione conjugates recognize the Rossmann fold of glyceraldehyde-3-phosphate dehydrogenase. *J Biol Chem.* 1997;272(16):10936-40.
8. Fishman SJ, Puder M, Geva T, Jenkins K, Ziegler MM, Shamberger RC. Cardiac relocation and chest wall reconstruction after separation of thoracopagus conjoined twins with a single heart. *J Pediatr Surg.* 2002;37(3):515-7.
9. Puder M, Greene A, Mooney D. Hepatic exstrophy complicating Poland's anomaly. *J Pediatr Surg.* 2002;37(8):1203-4.
10. Greene AK, Wiener S, Puder M, Yoshida A, Shi B, Perez-Atayde AR, Efstathiou JA, Holmgren L, Adamis AP, Rupnick M, Folkman J, O'Reilly MS. Endothelial-directed hepatic regeneration after partial hepatectomy. *Ann Surg.* 2003;237(4):530-5.
11. Greene AK, Puder M. Partial hepatectomy in the mouse: technique and perioperative management. *J Invest Surg.* 2003;16(2):99-102.
12. Satchi-Fainaro R, Puder M, Davies JW, Tran HT, Sampson DA, Greene AK, Corfas G, Folkman J. Targeting angiogenesis with a conjugate of HPMA copolymer and TNP-470. *Nat Med.* 2004;10(3):255-61.

13. Alwayn IP, Javid PJ, Gura KM, Nosé V, Ollero M, Puder M. Do polyunsaturated fatty acids ameliorate hepatic steatosis in obese mice by SREPB-1 suppression or by correcting essential fatty acid deficiency. *Hepatology*. 2004;39(4):1176-7; author reply 1177-8.
14. Greene AK, Puder M, Roy R, Kilroy S, Louis G, Folkman J, Moses MA. Urinary matrix metalloproteinases and their endogenous inhibitors predict hepatic regeneration after murine partial hepatectomy. *Transplantation*. 2004;78(8):1139-44.
15. Satchi-Fainaro R, Mamluk R, Wang L, Short SM, Nagy JA, Feng D, Dvorak AM, Dvorak HF, Puder M, Mukhopadhyay D, Folkman J. Inhibition of vessel permeability by TNP-470 and its polymer conjugate, caplostatin. *Cancer Cell*. 2005;7(3):251-61.
16. Alwayn IP, Gura K, Nosé V, Zausche B, Javid P, Garza J, Verbese J, Voss S, Ollero M, Andersson C, Bistrrian B, Folkman J, Puder M. Omega-3 fatty acid supplementation prevents hepatic steatosis in a murine model of nonalcoholic fatty liver disease. *Pediatr Res*. 2005;57(3):445-52.
17. Alwayn IP, Andersson C, Zauscher B, Gura K, Nosé V, Puder M. Omega-3 fatty acids improve hepatic steatosis in a murine model: potential implications for the marginal steatotic liver donor. *Transplantation*. 2005;79(5):606-8.
18. Greene AK, Alwayn IP, Nose V, Flynn E, Sampson D, Zurakowski D, Folkman J, Puder M. Prevention of intra-abdominal adhesions using the antiangiogenic COX-2 inhibitor celecoxib. *Ann Surg*. 2005;242(1):140-6.
19. Rothstein DH, Voss SD, Isakoff M, Puder M. Thymoma in a child: case report and review of the literature. *Pediatr Surg Int*. 2005;21(7):548-51.
20. Sakurai MK, Greene AK, Wilson J, Fauza D, Puder M. Pneumonectomy in the mouse: technique and perioperative management. *J Invest Surg*. 2005;18(4):201-5.
21. Javid PJ, Greene AK, Garza J, Gura K, Alwayn IP, Voss S, Nose V, Satchi-Fainaro R, Zausche B, Mulkern RV, Jaksic T, Bistrrian B, Folkman J, Puder M. The route of lipid administration affects parenteral nutrition-induced hepatic steatosis in a mouse model. *J Pediatr Surg*. 2005;40(9):1446-53.
22. Gura KM, Parsons SK, Bechard LJ, Henderson T, Dorsey M, Phipatanakul W, Duggan C, Puder M, Lenders C. Use of a fish oil-based lipid emulsion to treat essential fatty acid deficiency in a soy allergic patient receiving parenteral nutrition. *Clin Nutr*. 2005;24(5):839-47.
23. Udagawa T, Puder M, Wood M, Schaefer BC, D'Amato RJ. Analysis of tumor-associated stromal cells using SCID GFP transgenic mice: contribution of local and bone marrow-derived host cells. *FASEB J*. 2006;20(1):95-102.
24. Sakurai MK, Lee S, Arsenault DA, Nose V, Wilson JM, Heymach JV, Puder M. Vascular Endothelial Growth Factor (VEGF) Accelerates Compensatory Lung Growth After Unilateral Pneumonectomy. *Am J Physiol Lung Cell Mol Physiol*. 2006;PMID: 17122356.
25. Greene AK, Zurakowski D, Puder M, Thompson K. Determining the need for simulated training of invasive procedures. *Adv Health Sci Educ Theory Pract*. 2006;11(1):41-9.

26. Greene AK, Puder M, Roy R, Arsenault D, Kwei S, Moses MA, Orgill DP. Microdeformational wound therapy: effects on angiogenesis and matrix metalloproteinases in chronic wounds of 3 debilitated patients. *Ann Plast Surg.* 2006;56(4):418-22.
27. Kim S, Gura KM, Puder M. Acute necrotizing cholecystitis: a rare complication of ceftriaxone-associated pseudolithiasis. *Pediatr Surg Int.* 2006;22(6):562-4.
28. Gura KM, Duggan CP, Collier SB, Jennings RW, Folkman J, Bistrrian BR, Puder M. Reversal of parenteral nutrition-associated liver disease in two infants with short bowel syndrome using parenteral fish oil: implications for future management. *Pediatrics.* 2006;118(1):e197-201.
29. Lee S, Gura KM, Kim S, Arsenault DA, Bistrrian BR, Puder M. Current clinical applications of omega-6 and omega-3 fatty acids. *Nutr Clin Pract.* 2006;21(4):323-41.
30. Kim S, Linden B, Cendron M, Puder M. Pediatric anorectal impalement with bladder rupture: case report and review of the literature. *J Pediatr Surg.* 2006;41(9):E1-3.
31. Alwayn IP, Andersson C, Lee S, Arsenault DA, Bistrrian BR, Gura KM, Nose V, Zauscher B, Moses M, Puder M. Inhibition of matrix metalloproteinases increases PPAR- $\alpha$  and IL-6 and prevents dietary-induced hepatic steatosis and injury in a murine model. *Am J Physiol Gastrointest Liver Physiol.* 2006;291(6):G1011-9.

### **Books, Monographs, and Textbooks**

1. Puder M, Soberman RJ. Arachidonic acid-derived mediators of inflammation. In: Tilney NC, Strom TB, et al, editors. *Transplantation Biology: Cellular and Molecular Aspects.* Philadelphia (PA): Lippincott-Raven Publishers;1996.
2. McAlmon K, Puder M. GI bleeding. In: Hansen A, Puder M, editors. *Manual of Neonatal Surgical Intensive Care.* Ontario: BC Decker;2003.
3. Greene A, Puder M. Chylothorax. In: Hansen A, Puder M, editors, *Manual of Neonatal Surgical Intensive Care.* Ontario: BC Decker;2003.
4. Greene A, Puder M. Inguinal Hernia. In: Hansen A, Puder M, editors. *Manual of Neonatal Surgical Intensive Care.* Ontario: BC Decker;2003.
5. Puder M. General surgical considerations. In: Hansen A, Puder M, editors. *Manual of Neonatal Surgical Intensive Care.* Ontario: BC Decker;2003.
6. Greene A, Hansen A, Puder M. Vascular access. In: Hansen A, Puder M, editors. *Manual of Neonatal Surgical Intensive Care.* Ontario: BC Decker;2003.
7. Quigley S, Hansen A, Puder M. Stoma management. In: Hansen A, Puder M, editors. *Manual of Neonatal Surgical Intensive Care.* Ontario: BC Decker;2003.
8. Bousvaros A, Puder M. Gastrostomy tubes. In: Hansen A, Puder M, editors. *Manual of Neonatal Surgical Intensive Care.* Ontario: BC Decker;2003.
9. Pursley D, Puder M. Bowel obstruction. In: Hansen A, Puder M, editors. *Manual of Neonatal Surgical Intensive Care.* Ontario: BC Decker;2003.

10. Hansen A, Puder M. editors. Manual of Neonatal Surgical Intensive Care. Ontario: BC Decker;2003.

### **Clinical Communications**

1. Lee S and Puder M. Necrotizing enterocolitis. American Society for Parenteral and Enteral Nutrition Clinical Guidelines. 2006.
2. Strijbosch R and Puder M. Hypertriglyceridemia. American Society for Parenteral and Enteral Nutrition Clinical Guidelines. 2006.
3. Lee S and Puder M. Hepatobiliary. American Society for Parenteral and Enteral Nutrition Clinical Guidelines. 2006.
4. Kim S and Puder M. Hyper and hypoglycemia of the neonate. American Society for Parenteral and Enteral Nutrition Clinical Guidelines. 2006.
5. Gura KM, Puder M. Recent developments in aluminium contamination of products used in parenteral nutrition. *Curr Opin Clin Nutr Metab Care*. 2006;9(3):239-46.
6. Arsenault D and Puder M. Metabolic bone disease. American Society for Parenteral and Enteral Nutrition Clinical Guidelines. 2006.
7. Greene AK and Puder M. Prevention of Intra-abdominal Adhesions Using the Antiangiogenic COX-2 Inhibitor Celecoxib. *Annals of Surgery*. 2006;244(2):328 (Letter to the Editor).

### **Educational Materials**

1. Gura K, Lee S, Puder M. Tools for living better on home IV & tube feedings: HPN-Associated Liver Disease in Infants. 2006.

### **Thesis**

1. Puder, M. Intracellular binding of leukotriene C4 and glutathione conjugates [dissertation]. Boston, MA: Harvard University;1998.