

Curriculum vitae José Avila

October 2007

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Personal data

- Full name: José Gabriel Avila Calles
- Nationality: Venezuelan
- Languages (spoken and written): Spanish, English, Italian
- Professional address: 101 Woodruff Circle, Room 5308 Emory University, Atlanta, Georgia. 30322 U.S.A. Phone: +1 404 727 9994

Present position

- **Assistant Professor (Research Track) in the Department of Surgery. Scientific Director, Cell and Tissue Processing Laboratory.** Emory Transplant Center. October 09, 2006

Past positions

- Assistant Professor (Research Track) in the Department of Surgery, Associate Director of the Islet Transplant Program of the University of Illinois at Chicago.
- Associate Member of the Review Board for ACC (UIC), (review board for large animal protocol approval of the Animal Care Committee at the University of Illinois at Chicago (UIC).
- Visiting Instructor, Department of Surgery/Div. of Transplantation. University of Illinois at Chicago
- Research Fellow in the Clinical Islet Laboratory of the University of Alberta, Edmonton, Canada.
- Teaching Fellow in Anatomy at the Department of Anatomy and Cell Biology of the University of Saskatchewan, Saskatoon, Canada.

Membership in Societies

- College of Physicians of Zulia State in Venezuela (member No 10709)
- Registration in Ministry of Health in Venezuela: (54312)
- The Transplantation Society (member no. 9121) and member of the Islet and Pancreas International Transplant Association (IPITA).
- American Hepato Pancreato Biliary Association (AHPBA). Membership No. 4384.

Education, Training and Positions

Primary/High School (Venezuela)

1977-1983 Bella Vista International School (U.S. education system), Maracaibo, Venezuela.
1983-1988 San Vicente de Paul Catholic School, Maracaibo, Venezuela

Medical School/Graduate Education (Venezuela)

1989-1997 Universidad del Zulia, School of Medicine (Medical Degree)
1998-1999 Masters in Surgical Science, Imperial College (Hammersmith Hospital),
University of London, UK. (MSc. In Surgery)
2001-2006 PhD in Surgery, University of Alberta, Edmonton, Canada.

Surgical and Academic Training

1990 Theory and Practice in Basic Surgical Techniques. Faculty of Medicine,
University of Zulia, Venezuela.

1994 Handling of Pediatric Emergencies. Faculty of Medicine, University of Zulia.

1995 Medical Response to Emergency Patients. Faculty of Medicine, University of
Zulia.

1996 Attending Medical Emergencies in Rural Areas, Faculty of Medicine, University
of Zulia.

1996-1998 Surgical Assistant to Dr. Hermilo Avila, Hand Surgeon, Policlinica San Luis,
Maracaibo, Venezuela.

1997-1998 Post-graduate internship (rural medicine), Ambulatory Hospital “El Mojan”,
Venezuela

1998 2 month Clinical Attachment in Vascular Surgery, (Mr. Kevin Lafferty),
Basildon General Hospital, UK.

1998-1999 Clinical Attachment in Vascular Surgery (Mr. Nigel Standsfield), Hammersmith
Hospital, London, UK.

1999 Cardiopulmonary Resuscitation Training. Hammersmith Hospital. London.

- 2000 Teaching Fellowship in Anatomy. Dept. of Anatomy and Cell Biology, University of Saskatchewan, Canada (Dr. Adel Mohamed).
- 2001-11.2003 Fellow in the Clinical Islet Laboratory (Dr. Jonathan Lakey), University of Alberta, Canada. **Over 200 human pancreata processed since July 2001 and November 2003.**
- 2002 II Human Islet Transplantation Techniques Workshop. Banff, Alberta, Canada.
- 2004 Techniques in Flow Cytometry. Workshop. University of Illinois at Chicago. January-March 2004.
- 2003-2006 Instructor at the Islet Transplantation Laboratory of the University of Illinois at Chicago. Chicago, Illinois. **Over 150 human pancreata processed since December 2003.**

Prizes/Awards

- Fundación Gran Mariscal de Ayacucho (Scholarship) from the Venezuelan Government, (up to 55,000 USD a year for max. of 3 years). 1998
- **J. Avila, B. Barbaro, A. Gangemi, S. Handschuhmacher, M. Hansen, T. Romagnoli, J. Kuechle, P. Glauser, E. Benedetti and J. Oberholzer: GLUTAMINE PERFUSION OF HUMAN PANCREATA IMPROVES ISLET ISOLATION OUTCOME AND ISLET GRAFT FUNCTION. First Prize Poster at the 24th Workshop of the AIDPIT study group, Igls-Innsbruck, Austria, 2005 (500 Euros).**
- **J. Avila, B. Barbaro, S. Handschumacher, A. Gangemi, T. Romagnoli, J. Kuechle, E. Benedetti, T. Churchill, J. Lakey and J. Oberholzer: INTRADUCTAL GLUTAMINE PERFUSION PROTECTS AGAINST WARM ISCHEMIA AND IMPROVES ISLET TRANSPLANTATION OUTCOMES IN A RODENT MODEL. International Pancreas and Islet Transplant Association (IPITA) Travel Award (1000 USD).**
- Certificate of Excellence in leadership and contributions to the advancement of student research. **Hispanic Center of Excellence. University of Illinois at Chicago. August 9, 2006.**

Grants (2005)

Grants

- **Transplantation Society:** Principal Investigator: **J. Avila**, co-PI : J. Oberholzer, **30,000** (April, 2005)
- **Juvenile Diabetes Research Foundation:** Principal Investigator: J. Oberholzer, co-PI: **J. Avila**, **110,000**. (April, 2006).

Abstracts

International congress presentations

1. **J.G. Avila**, T. Tsujimura, J. Oberholzer, T. Churchill, P. Salehi, AM James Shapiro, J.R.T. Lakey. IMPROVEMENT OF PANCREATIC ISLET ISOLATION OUTCOMES USING GLUTAMINE PERFUSION DURING ISOLATION PROCEDURE. Poster: Canadian Society of Transplantation, 2003.
2. **Jose Avila**, Bob Trottman, Deborah Mchee-Wilson, Toshiaki Tsujimura, AM James Shapiro, Jonathan RT Lakey. AUTOMATED ISLET LABORATORY INFORMATION SYSTEM. Poster: Canadian Society of Transplantation, 2003.
3. **J. Avila**, B. Barbaro, S. Handschumacher, A. Gangemi, T. Romagnoli, J. Kuechle, E. Benedetti, T. Churchill, J. Lakey and J. Oberholzer: INTRADUCTAL GLUTAMINE PERFUSION PROTECTS AGAINST WARM ISCHEMIA AND IMPROVES ISLET TRANSPLANTATION OUTCOMES IN A RODENT MODEL. Oral presentation at the 24th Workshop of the AIDSPIT study group, Igls-Innsbruck, Austria, 2005.
4. **J. Avila**, B. Barbaro, A. Gangemi, S. Handschuhmacher, M. Hansen, T. Romagnoli, J. Kuechle, P. Glauser, E. Benedetti and J. Oberholzer: GLUTAMINE PERFUSION OF HUMAN PANCREATA IMPROVES ISLET ISOLATION OUTCOME AND ISLET GRAFT FUNCTION. Poster presentation at the 24th Workshop of the AIDSPIT study group, Igls-Innsbruck, Austria, 2005.
5. M. Hansen, R. Mage, **J. Avila**, P. Bucher, T. Romagnoli, E. Benedetti, Ph. Morel and J. Oberholzer: COMPARING COOLING SYSTEMS FOR THE COBE 2991 CELL PROCESSOR USED IN THE PURIFICATION OF HUMAN PANCREATIC ISLETS OF LANGERHANS. Poster presentation at the 24th Workshop of the AIDSPIT study group, Igls-Innsbruck, Austria, 2005.

6. M. Hansen, **J. Avila**, B. Barbaro, S. Handshumacher, A. Gangemi, T. Romagnoli, P. Murdock, E. Benedetti and J. Oberholzer: HUMAN ISLET ISOLATION RESULTS OF PANCREATA PRESERVED WITH HTK- VERSUS UW-SOLUTION. Poster presentation at the 24th Workshop of the AIDSPIT study group, Igls-Innsbruck, Austria, 2005.
7. **José Avila**, Barbara Barbaro, Antonio Gangemi, Sandra Handschumacher, Joseph Kuechle, Travis Romagnoli, Michael Hansen, Enrico Benedetti, Jonathan Lakey and José Oberholzer. GLUTAMINE TREATMENT OF HUMAN ISLETS DURING PANCREAS PERFUSION AND ITS INFLUENCE ON OXIDATIVE STRESS AND TRANSPLANTATION. Poster Presentation at the American Hepato-Pancreato-Biliary Association (AHPBA). Ft. Lauderdale, U.S. 2005.
8. **J. Avila**, B. Barbaro, A. Gangemi, T. Romagnoli, J. Kuechle, E. Benedetti, T. Churchill, J. Lakey and J. Oberholzer. INTRADUCTAL GLUTAMINE PERFUSION PROTECTS AGAINST WARM ISCHEMIA AND IMPROVES ISLET TRANSPLANTATION OUTCOMES IN A RODENT MODEL. Oral Presentation at the 10th International Pancreas and Islet Transplant Association meeting in Geneva, Switzerland. 2005
9. **J. Avila**, B. Barbaro, A. Gangemi, T. Romagnoli, J. Kuechle, M. Hansen, E. Benedetti, J. Lakey and J. Oberholzer. GLUTAMINE TREATMENT OF HUMAN ISLETS DURING PANCREAS PERFUSION AND ITS INFLUENCE ON OXIDATIVE STRESS AND TRANSPLANTATION. Poster Presentation at the 10th International pancreas and Islet Transplant Association (IPITA). Geneva, Switzerland. 2005
10. **J. Avila**, B. Barbaro, A. Gangemi, T. Romagnoli, J. Kuechle, M. Hansen, E. Benedetti, J. Lakey and J. Oberholzer. INTRADUCTAL GLUTAMINE ADMINISTRATION REDUCES OXIDATIVE INJURY DURING HUMAN PANCREATIC ISLET ISOLATION. Oral Presentation at the American Transplant Congress. Seattle, U.S. 2005
11. Gangemi A., Braun M., **Avila J.**, Testa G., Benedetti E., Oberholzer J. Total pancreatectomy with autologous islet transplantation: A Technique to Minimize Warm Ischemia Time of the Organ. XXIV Congresso Nazionale "Pancreatic Islets Transplantation" held at Montecatini Terme, Italy 26-29 May 2005.

Invited speaker

1. **J. Avila:** Endocrine Replacement for the Treatment of Type I Diabetes. XIV Brazilian Congress of Diabetes. Goiania, Brazil. November, 2003.
2. **J. Avila:** Challenges in Endocrine Replacement for the Treatment of Type I Diabetes. Christ Hospital Grand Rounds. Chicago, U.S. March 2004.

3. **J. Avila:** Islet Transplantation at the UIC. United Network for Organ Sharing (UNOS) Region 7 Meeting (2005). Chicago, U.S. March 2005.
4. **J. Avila:** Challenges in Isolation and Purification of Human Pancreatic Islets. IV International Symposium-New Technologies for Insulin Replacement Artificial Pancreas and Islet Transplantation. Assisi, Italy, April 2005.
5. **J. Avila:** Effects of Perfluorocarbons (PFC) and The Two-Layer Method in Pancreas Preservation. Gift of Hope (Illinois Tissue and Organ Allocation Organization). Elmhurst, U.S. June 2005.
6. **J. Avila:** Surgical Treatment for Patients with Type-1 Diabetes. St. Francis Hospital (OSF Summit), October 6, 2005.
7. **J. Avila:** Endocrine Replacement for the treatment of type-I diabetes. Emory Transplant Center noon Conference. Emory University Hospital, Atlanta, GA. February 21, 2007.

Publications

Peer reviewed journals

1. Jonathan R.T. Lakey, Erik H. Woods, **Jose G. Avila**, Michael A.J. Zieger, William A. Geary, Sherry L., Voytik-Harbin, and John K. Critser. Improved Islet Survival and In Vitro Function Using Solubilized Small Intestinal Submucosa. *Cell and Tissue Banking*. 2001; 2: 217-24. (Printed in Dec 2002).
2. Mohamed AA, **Avila JG**, Schultke E, Kamencic H, Skihar V, Obayan A, Juurlink BH. Amelioration of experimental allergic encephalitis (EAE) through phase 2 enzyme induction. *Biomed Sci Instrum*.38: 9-13; 2002.
3. Tsujimura T, Kuroda Y., Kin T., **Avila JG.**, Rajotte RV.,Korbitt GS., Ryan EA., Shapiro AMJ., Lakey JRT. Human islet transplantation from pancreases with prolonged cold ischemia using additional preservation by the two-layer (UW solution/Perfluorochemical) cold storage method. *Transplantation*. 74 (12): 1687-1691; 2002.
4. Zhu Jay, Castillo Erika, Salehi Payam, **Avila Jose G.**, Lakey Jonathan R.T., Churchill Thomas A. A novel technique of hypothermic luminal perfusion for small bowel preservation. *Transplantation*. 76(1): 71-6; 2003.
5. Payam Salehi, Jay Z.J. Zhu, Erika G. Castillo, **Jose Avila**, Jonathan Lakey, Thomas A. Churchill. Preserving the mucosal barrier during small bowel storage. *Transplantation*. 27; 76(6): 911-7; 2003.

6. Tsujimura T., Kuroda Y., **Avila JG.**, Kin T., Churchill TA., Shapiro AM., Lakey JR. Resuscitation of the ischemically damaged human pancreas by the two-layer method prior to islet isolation. *Transplant Proc.* 35(7):2461-2; 2003
7. **Avila JG.**, Tsujimura T., Oberholzer J., Churchill T., Salehi P., Shapiro AM., Lakey JR. Improvement of pancreatic islet isolation outcomes using glutamine perfusion during isolation procedure. *Cell Transplant.* 12(8): 877-81; 2003
8. Tsujimura T., Kuroda Y., Churchill TA., **Avila JG.**, Kin T., Shapiro AM., Lakey JR. Short-term storage of the ischemically damaged human pancreas by the two-layer method prior to islet isolation. *Cell Transplant.* 13 (1): 67-73; 2004.
9. Salehi P., Madsen K., Zhu J., Castillo E., **Avila J.**, Lakey JR., Churchill TA. Alleviating ischemia-reperfusion injury in small bowel. *Am J Transplant.* 4(5): 728-37; May 2004
10. Tsujimura T., Kuroda Y., **Avila JG.**, Kin T., Oberholzer J., Shapiro AM., Lakey JR. Influence of pancreas preservation on human islet isolation outcomes: impact of the two-layer method. *Transplantation.* 78 (1): 96-100; Jul 2004.
11. Tsujimura T, Salehi P., Walker J., **Avila J.**, Madsen K., Lakey J., Kuroda Y., Churchill TA. Amelioration small bowel injury using a cavitary two-layer preservation method with perfluorocarbon and a nutrient-rich solution. *Am. J. Transplant.* 4 (9): 1421-8; Sep 2004.
12. Street CN, Lakey JR, Shapiro AM, Imes S, Rajotte RV, Ryan EA, Lyon JG, Kin T, **Avila J**, Tsujimura T, Korbitt GS. Islet graft assessment in the Edmonton Protocol: implications for predicting long-term clinical outcome. *Diabetes.* 53 (12): 3107-14; Dec 2004.
13. **Jose G. Avila**, Travis Murdoch, Bob Troppmann, Deborah Mcghee-Wilson, Bruce Hull, and Jonathan R.T. Lakey. Automated Cell Isolation Laboratory Information System. *Cell Preservation Technology.* 2 (3): 209-14; 2004.
14. **J. Avila**, B. Barbaro, A. Gangemi, T. Romagnoli, J. Kuechle, M. Hansen, J. Shapiro, G. Testa, H. Sankary, E. Benedetti, J. Lakey and J. Oberholzer. Intraductal Glutamine Administration Reduces Oxidative Injury During Human Pancreatic Islet Isolation. *American Journal of Transplantation.* 5, (12): 2830-7; 2005.
15. **Avila JG**, Wang Y, Barbaro B, Gangemi A, Qi M, Kuechle J, Doubleday N, Doubleday M, Churchill T, Salehi P, Shapiro J, Philipson LH, Benedetti E, Lakey JR, Oberholzer J. Improved Outcomes in Islet Isolation and Transplantation by the Use of a Novel Hemoglobin-based O₂ Carrier. *Am J Transplant.* 2006 Dec; 6(12):2861.

16. Salehi P, Hansen MA, **Avila JG**, Barbaro B, Gangemi A, Romagnoli T, Wang Y, Qi M, Murdock P, Benedetti E, Oberholzer J. Human islet isolation outcomes from pancreata preserved with Histidine-Tryptophan Ketoglutarate versus University of Wisconsin solution. Transplantation. 2006 Oct 15;82(7):983-5.
17. Gimi B, Leoni L, Oberholzer J, Braun M, **Avila J**, Wang Y, Desai T, Philipson LH, Magin RL, Roman BB. Functional MR microimaging of pancreatic beta-cell activation. Cell Transplant. 2006;15(2):195-203.