


<h2>Curriculum Vitae</h2> <p><b>Julie KERR-CONTE</b> (married name PATTOU) Born 26/8/1964 Syracuse, NY</p> 		<h3>POSITION TITLE</h3> <p>Professor, Cell Therapy / Cell Biology Medical Faculty, Université de Lille, France</p>	
<h3>EDUCATION/TRAINING</h3>			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
SUNY Albany, Albany, NY	Bachelors	1986	Biology
University of Wisconsin, Madison	Master	1990	Physiological Chemistry
Science and Technology University, Lille 1	PhD	1995	Health Sciences
University of Paris VII	DU	2002-2002	Cell Therapy
University of Lille 2	HDR	2005	Biology

#### **Past positions and Honors:**

Research Assistant, Teaching Assistant University of Wisconsin-Madison 1987-1990  
 Internship (labset up) Experimental Surgery lab, Fondation Transplantation, Strasbourg, France 1990-1991  
 Researcher : 50% Responsible for the Core University Hospital Cell Culture lab and  
 50% Researcher in UPRES 1048 (Pr J Lefebvre 1996-2006)

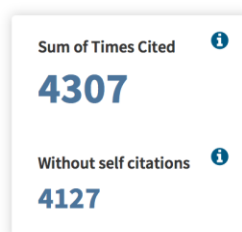
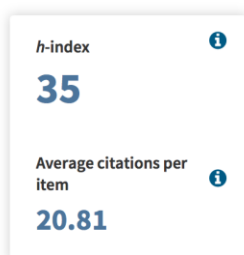
#### **Present functions :**

Professor of Cell Biology/Cell Therapy Medical Faculty, University of Lille in the INSERM U1190 team on Translational Research for Diabetes  
 Responsible for research and clinical grade human islet isolation (French FDA (ANSM) approved process)  
 Director of the core Biotherapies Platform since 2012 (French FDA approved facility)  
 Deputy Director, INSERM U1190 Recherche Translationnelle sur le Diabète

#### **Member of learned societies:**

European Association for the Study of Diabetes (EASD); since 1995  
 International Pancreas and Islet Transplantation Association since 1999  
 Board member of Artificial Insulin Delivery Pancreas and islet Transplant 2004-2008  
 Board member of European Islet and Pancreas Transplantation Association EPITA 2018-  
 Member of the SFD since 2013  
 Member of ESOT since 2016  
 Elected member of CNU (Conseil National des Universités) in Cell Biology (65) since 2015

#### **Publications (last 5 years):**



Gargani S, Thevenet J, Yuan JE, Lefebvre B, Delalleau N, Gmyr V, Hubert T, Duhamel A, Pattou F, **Kerr-Conte J**  
 Adaptive changes of human islets to an obesogenic environment in the mouse. *Diabetologia* 2013;56:350-8.

- Sterkers A, Hubert T, Gmyr V, Torres F, Baud G, Delalleau N, Vantyghem MC, **Kerr-Conte J**, Caiazzo R, Pattou F. Islet survival and function following intramuscular autotransplantation in the minipig. *Am J Transplant.* 2013;13:891-898
- Caiazzo R, Vantyghem MC, Raverdi V, Bonner C, Gmyr V, Defrance F, Leroy C, Sergent G, Hubert T, Ernst O, Noel C, **Kerr-Conte J**, Pattou F. Impact of procedure-related complications on long-term islet transplantation outcome. *Transplantation.* 2015 May;99(5):979-84.
- Balamurugan AN, Naziruddin B, Lockridge A, Tiwari M, Loganathan G, Takita M, Matsumoto S, Papas K, Trieger M, Rainis H, Kin T, Kay TW, Wease S, Messinger S, Ricordi C, Alejandro R, Markmann J, **Kerr-Conte J**, Rickels MR, Liu C, Zhang X, Witkowski P, Posselt A, Maffi P, Secchi A, Berney T, O'Connell PJ, Hering BJ, Barton FB. Islet product characteristics and factors related to successful human islet transplantation from the collaborative islet transplant registry (citr) 1999-2010. *Am J Transplant.* 2014;14:2595-2606
- Latreille M, Hausser J, Stutzer I, Zhang Q, Hastoy B, Gargani S, **Kerr-Conte J**, Pattou F, Zavolan M, Esguerra JL, Eliasson L, Rulicke T, Rorsman P, Stoffel M. MicroRNA-7a regulates pancreatic beta cell function. *J Clin Invest.* 2014;124:2722-2735
- Nano R, Bosco D, **Kerr-Conte JA**, Karlsson M, Charvier S, Melzi R, Ezzouaoui R, Mercalli A, Hwa A, PATTOU F, Korsgren O, Berney T, Piemonti L. Human islet distribution programme for basic research: activity over the last 5 years. *Diabetologia.* 2015 Feb 21.
- Vantyghem MC, Quintin D, Caiazzo R, Leroy C, Raverdy V, Cassim F, Glowacki F, Hubert T, Gmyr V, Noel C, **Kerr-Conte J**, Pattou F. Improvement of electrophysiological neuropathy after islet transplantation for type 1 diabetes: a 5-year prospective study. *Diabetes Care.* 2014 Jun;37.
- Bonner C, **Kerr-Conte J**, Gmyr V, Gurvan Q, Moerman E, Thévenet J, Beaucamps C, Delalleau N, Popescu J, Malaisse WJ, Sener A, Deprez B, Abderrahmani A, Staels B & Pattou F– Inhibition of the glucose transporter SGLT2 with dapagliflozin in pancreatic alpha cells triggers glucagon sécrétion (*Nature Medicine* 2015 May;21(5):512-7).
- Henquin JC, Dufrane D, **Kerr-Conte J**, Nenquin M. Dynamics of glucose-induced insulin secretion in normal human islets. *Am J Physiol Endocrinol Metab.* 2015 Oct 1;309(7):E640-50
- Shu L, Matveyenko AV, Kerr-Conte J, Cho JH, McIntosh CH, Maedler K. Decreased TCF7L2 protein levels in type 2 diabetes mellitus correlate with downregulation of GIP- and GLP-1 receptors and impaired beta-cell function. *Hum Mol Genet.* 2015 May 15;24(10):3004. doi: 10.1093/hmg/ddv075. Epub 2015 Mar 8.
- Bonner C, **Kerr-Conte J**, Gmyr V, Queniat G, Moerman E, Thévenet J, Beaucamps C, Delalleau N, Popescu I, Malaisse WJ, Sener A, Deprez B, Abderrahmani A, Staels B, Pattou F. Inhibition of the glucose transporter SGLT2 with dapagliflozin in pancreatic alpha cells triggers glucagon secretion. *Nat Med.* 2015 May;21(5):512-7. doi: 10.1038/nm.3828. Epub 2015 Apr 20.
- Belgardt BF, Ahmed K, Spranger M, Latreille M, Denzler R, Kondratiuk N, von Meyenn F, Villena FN, Herrmanns K, Bosco D, **Kerr-Conte J**, Pattou F, Rüllicke T, Stoffel M. The microRNA-200 family regulates pancreatic beta cell survival in type 2 diabetes. *Nat Med.* 2015 Jun;21(6):619-27. doi: 10.1038/nm.3862. Epub 2015 May 18.
- Prévost G, Jeandel L, Arabo A, Coëffier M, El Ouahli M, Picot M, Alexandre D, Gobet F, Leprince J, Berrahmoune H, Déchelotte P, Malagon M, Bonner C, **Kerr-Conte J**, Chigr F, Lefebvre H, Anouar Y, Chartrel N. Hypothalamic Neuropeptide 26RFa Acts as an Incretin to Regulate Glucose Homeostasis. *Diabetes.* 2015 Aug;64(8):2805-16. doi: 10.2337/db14-1864. Epub 2015 Apr 9.
- Baud G, Daoudi M, Hubert T, Raverdy V, Pigeyre M, Hervieux E, Devienne M, Ghunaim M, Bonner C, Quenon A, Pigny P, Klein A, **Kerr-Conte J**, Gmyr V, Caiazzo R, Pattou F. Bile Diversion in Roux-en-Y Gastric Bypass Modulates Sodium-Dependent Glucose Intestinal Uptake. *Cell Metab.* 2016 Mar 8;23(3):547-53. doi: 10.1016/j.cmet.2016.01.018. Epub 2016 Feb 25.
- Timper K, Dalmas E, Dror E, Rütli S, Thienel C, Sauter NS, Bouzakri K, Bédât B, Pattou F, **Kerr-Conte J**, Böni-Schnetzler M, Donath MY. Glucose-Dependent Insulinotropic Peptide Stimulates Glucagon-Like Peptide 1 Production by Pancreatic Islets via Interleukin 6, Produced by  $\alpha$  Cells. *Gastroenterology.* 2016 Jul;151(1):165-79. doi: 10.1053/j.gastro.2016.03.003. Epub 2016 Mar 10.

- Rabhi N, Denechaud PD, Gromada X, Hannou SA, Zhang H, Rashid T, Salas E, Durand E, Sand O, Bonnefond A, Yengo L, Chavey C, Bonner C, **Kerr-Conte J**, Abderrahmani A, Auwerx J, Fajas L, Froguel P, Annicotte JS. KAT2B Is Required for Pancreatic Beta Cell Adaptation to Metabolic Stress by Controlling the Unfolded Protein Response. *Cell Rep.* 2016 May 3;15(5):1051-1061. doi: 10.1016/j.celrep.2016.03.079. Epub 2016 Apr 21.
- Plaisance V, Brajkovic S, Tenenbaum M, Favre D, Ezanno H, Bonnefond A, Bonner C, Gmyr V, **Kerr-Conte J**, Gauthier BR, Widmann C, Waeber G, Pattou F, Froguel P, Abderrahmani A. Endoplasmic Reticulum Stress Links Oxidative Stress to Impaired Pancreatic Beta-Cell Function Caused by Human Oxidized LDL. *PLoS One.* 2016 Sep 16;11(9):e0163046. doi: 10.1371/journal.pone.0163046. eCollection 2016.
- Gmyr V, Bonner C, Moerman E, Tournoy A, Delalleau N, Quenon A, Thevenet J, Chetboun M, **Kerr-Conte J**, Pattou F, Hubert T, Jourdain M. Human Recombinant Antithrombin (ATryn®) Administration Improves Survival and Prevents Intravascular Coagulation After Intraportal Islet Transplantation in a Piglet Model. *Cell Transplant.* 2017 Feb 16;26(2):309-317. doi: 10.3727/096368916X693554. Epub 2016 Oct 27.
- Akerman I, Tu Z, Beucher A, Rolando DMY, Sauty-Colace C, Benazra M, Nakic N, Yang J, Wang H, Pasquali L, Moran I, Garcia-Hurtado J, Castro N, Gonzalez-Franco R, Stewart AF, Bonner C, Piemonti L, Berney T, Groop L, **Kerr-Conte J**, Pattou F, Argmann C, Schadt E, Ravassard P, Ferrer J. Human Pancreatic  $\beta$  Cell lncRNAs Control Cell-Specific Regulatory Networks. *Cell Metab.* 2017 Feb 7;25(2):400-411. doi: 10.1016/j.cmet.2016.11.016. Epub 2016 Dec 29.
- Ben-Othman N, Vieira A, Courtney M, Record F, Gjernes E, Avolio F, Hadzic B, Druelle N, Napolitano T, Navarro-Sanz S, Silvano S, Al-Hasani K, Pfeifer A, Lacas-Gervais S, Leuckx G, Marroquí L, Thévenet J, Madsen OD, Eizirik DL, Heimberg H, **Kerr-Conte J**, Pattou F, Mansouri A, Collombat P. Long-Term GABA Administration Induces Alpha Cell-Mediated Beta-like Cell Neogenesis. *Cell.* 2017 Jan 12;168(1-2):73-85
- Henquin JC, Dufrane D, Gmyr V, **Kerr-Conte J**, Nenquin M. Pharmacological approach to understanding the control of insulin secretion in human islets. *Diabetes Obes Metab.* 2017 Aug;19(8):1061-1070. doi: 10.1111/dom.12887. Epub 2017 Mar 31.
- Dror E, Dalmas E, Meier DT, Wueest S, Thévenet J, Thienel C, Timper K, Nordmann TM, Traub S, Schulze F, Item F, Vallois D, Pattou F, **Kerr-Conte J**, Lavallard V, Berney T, Thorens B, Konrad D, Böni-Schnetzler M, Donath MY. Postprandial macrophage-derived IL-1 $\beta$  stimulates insulin, and both synergistically promote glucose disposal and inflammation. *Nat Immunol.* 2017 Mar;18(3):283-292. doi: 10.1038/ni.3659. Epub 2017 Jan 16.
- Dalmas E, Lehmann FM, Dror E, Wueest S, Thienel C, Borsigova M, Stawiski M, Traunecker E, Lucchini FC, Dapito DH, Kallert SM, Guigas B, Pattou F, **Kerr-Conte J**, Maechler P, Girard JP, Konrad D, Wolfrum C, Böni-Schnetzler M, Finke D, Donath MY. Interleukin-33-Activated Islet-Resident Innate Lymphoid Cells Promote Insulin Secretion through Myeloid Cell Retinoic Acid Production. *Immunity.* 2017 Nov 21;47(5):928-942.e7.
- Benomar K, Chetboun M, Espiard S, Jannin A, Le Mapihan K, Gmyr V, Caiazzo R, Torres F, Raverdy V, Bonner C, D'Herbomez M, Pigny P, Noel C, **Kerr-Conte J**, Pattou F, Vantyghem MC. Purity of islet preparations and 5-year metabolic outcome of allogenic islet transplantation. *Am J Transplant.* 2018 Apr;18(4):945-951. doi: 10.1111/ajt.14514. Epub 2017 Nov 11.
- Baquié M, St-Onge L, **Kerr-Conte J**, Cobo-Vuilleumier N, Lorenzo PI, Jimenez Moreno CM, Cederroth CR, Nef S, Borot S, Bosco D, Wang H, Marchetti P, Pattou F, Wollheim CB, Gauthier BR. The liver receptor homolog-1 (LRH-1) is expressed in human islets and protects  $\beta$ -cells against stress-induced apoptosis. *Hum Mol Genet.* 2018 Jan 15;27(2):406. doi: 10.1093/hmg/ddx402. No abstract available.
- Lablanche S, Vantyghem MC, Kessler L, Wojtuszczyz A, Borot S, Thivolet C, Girerd S, Bosco D, Bosson JL, Colin C, Tetaz R, Logerot S, **Kerr-Conte J**, Renard E, Penfornis A, Morelon E, Buron F, Skaare K, Grguric G, Camillo-Brault C, Egelhofer H, Benomar K, Badet L, Berney T, Pattou F, Benhamou PY; TRIMECO trial investigators. Islet transplantation versus insulin therapy in patients with type 1 diabetes with severe hypoglycaemia or poorly controlled glycaemia after kidney transplantation (TRIMECO): a multicentre, randomised controlled trial. *Lancet Diabetes Endocrinol.* 2018 May 15.

#### Patents :

Kerr-Conte J, Pattou F Process for obtaining mammalian insulin secreting cells in vitro and their uses. US patent N°6,900,051 (21-09-2001/ CHRU-UL2, issued 31 May 2005).

Pattou F, Kerr-Conte J, Boissac Blondel C, Lukowiak B, Vandewalle B, Heron A. Procédé de conservation de cellules sécrétrices d'insuline destinées à être transplantées.n° 08/02699 (10/05/2008/ MacoPharma et CHRU-UL2), issued 2 931 164, 2009.

### **Personal statement :**

American, in Europe since 1990, I earned my Masters' degree in J Southard/ F Belzer's lab at the University of Wisconsin, Madison on hypothermic preservation of hepatocytes more precisely the role of glutathione in the UW solution. I moved to Strasbourg to help Pr Karim Boudjema a French liver transplant surgeon set up an experimental research lab. Francois Pattou a young surgeon from Lille France did his Masters with K Boudjema that year and after accepting to marry him, we both moved to Lille and set up a research lab at the medical faculty on islet transplantation. Responsible for human islet production for research and transplantation with > 1000 human pancreata processed, I have become a recognized technical expert and a faculty member of NICE *Networks of Islet Cell Transplantation in Europe*. Deputy director of INSERM U1190 Translational Research for Diabetes (>35 people), I am responsible for the manned Biotherapies Platform, authorized by the French FDA for auto and allograft cell therapy of diabetes (171 islet allo/autotransplants in 70 patients). I became a full professor of cell biology/ cell therapy in 2007 at the Medical Faculty, Université de Lille, France. Our team will partake in two European H2020 ATMP clinical trials in Lille (CARAMBA, DENIM) and hope on this occasion that we will upgrade our islet isolation process /facility to GMP standards. For over 20 years the lab has continually validated new technological approaches both in our preclinical minipig model and in our QIVIPA (Quantitative in vivo islet potency assay) in the immunodeficient mouse (>2000 mice). In 2012 we started a human pluripotent stem cell differentiation program to attempt to provide human pancreatic cells for research in the lab.

Seeing that organ donor age is continually increasing, one of my research interests is studying the capacity of old (>60) and old/obese human islets to adapt to their environment, and more specifically a high fat diet environment (Gargani S Diabetol 2013, La Treille M JCI 2014). What determines the capacity to adapt, age, BMI, HbA1c? We now have > 25 human islet preparations transplanted in > 200 immunodeficient mice.