



### BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed on Form Page 2.  
Photocopy this page or follow this format for each person

<b>NAME</b> <b>KEYMEULEN Bart</b>	<b>POSITION TITLE</b> <b>Professor, M.D. Ph.D.</b> <b>Head of Clinical Diabetes Unit</b>		
<b>EDUCATION/TRAINING</b> ( <i>Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.</i> )			
<b>INSTITUTION AND LOCATION</b>	<b>DEGREE</b>	<b>YEAR(s)</b>	<b>FIELD OF STUDY</b>
Vrije Universiteit Brussel (VUB), Belgium	M.D.	1985	Medicine
	Master	1987	Hospital Sciences
	Specialist	1991	Intern. Medicine
			Endocrinology
	Ph.D.	1994	Medicine

**RESEARCH AND PROFESSIONAL EXPERIENCE:** Concluding with present position, list, in chronological order, previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. List, in chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application. If the list of publications in the last three years exceeds two pages, select the most pertinent publications. **DO NOT EXCEED TWO PAGES.**

#### Professional experience

##### Research

- 1983-93 Research Assistant, National Fund Scientific Research, Belgium  
 1993-95 Postdoctoral Researcher, National Fund Scientific Research, Belgium  
 1994- Trial team leader "β Cell Transplant", multicenter program on islet cell transplantation in diabetes  
 1997- Professor of Medicine, Vrije Universiteit Brussel, Brussels, Belgium  
 2001- Senior Clinical Investigator of the Fund for Scientific Research-Flanders (Belgium)

##### Clinical

- 1985-91 Resident Department of Internal Medicine/Endocrinology, University Hospital, Brussels  
 1991-95 Clinical Staff Member Dept. of Endocrinology, University Hospital, Brussels  
 1995-97 Associate Head Dept. of Endocrinology, University Hospital, Brussels  
 1997- Head Diabetic Unit, Dept. of Endocrinology, University Hospital, Brussels

#### Honors and awards

- 1998 Novo Nordisk Award for Diabetology

#### Bibliography

1. Keymeulen B, Teng H, Vetri M, Gorus F, In't Veld P, Pipeleers DG: Effect of donor islet mass on the degree of metabolic normalization in streptozotocin-diabetic rats. *Diabetologia* 35:719-24, 1992
2. Keymeulen B, Vetri M, Gorus F, Vanbrabant B, Pipeleers DG: The effect of insulin treatment on function of intraportally grafted islets in streptozotocin-diabetic rats. *Transplantation* 56:60-64, 1993
3. Pipeleers D, Keymeulen B, Korbitt G: Islet transplantation. In: *Diabetes Annual 8*, Marshall S and Home P (eds.), Elsevier Science Publishers 8:299-330, 1994
4. De Paepe ME, Keymeulen B, Pipeleers D, Klöppel G: Proliferation and hypertrophy of liver cells surrounding islet grafts in diabetic recipient rats. *Hepatology* 21:1144-53, 1995
5. Myrsén U, Keymeulen B, Pipeleers D, Sundler F: Beta cells are important for islet innervation: evidence from purified rat islet-cell grafts. *Diabetologia* 39:54-59, 1996

6. Keymeulen B, Korbitt G, De Paepe M, Klöppel G, Pipeleers D: Long-term metabolic control by rat islet grafts depends on composition of implant. *Diabetes* 45:1814-21, 1996
7. Keymeulen B, Anselmo J, Pipeleers D: Length of metabolic normalization after rat islet cell transplantation depends on endocrine cell composition of graft and on donor age. *Diabetologia* 40:1152-58, 1997
8. Keymeulen B, Ling Z, Gorus F, Delvaux G, Bouwens L, Gruppig A, Hendrieckx C, Pipeleers-Marichal M, Van Schravendijk C, Salmela K, Pipeleers D: Implantation of standardized  $\beta$ -cell grafts in a liver segment of insulin-dependent diabetic patients: graft and recipient characteristics in two cases of insulin-independence under maintenance immunosuppression for prior kidney graft. *Diabetologia* 41:452-59, 1998
9. Roep BO, Stobbe I, Duinkerken G, van Rood JJ, Lernmark Å, Keymeulen B, Pipeleers D, Claas FHJ, de Vries RR: Allo-and autoimmune reactivity to human islet allografts transplanted to insulin-dependent diabetes mellitus patients. *Diabetes* 48:484-90, 1999
10. Stobbe I, Duinkerken G, van Rood JJ, Lernmark A, Keymeulen B, Pipeleers D, DeVries RR, Glass FH, Roep BO. Tolerance to kidney allograft transplanted into Type I diabetic patients persists after in vivo challenge with pancreatic islet allografts that express repeated mismatches. *Diabetologia*. 42:1379-1380, 1999
11. Decochez K, Keymeulen B, Somers G, Dorchy H, De Leeuw IH, Mathieu C, Rottiers R, Winnock F, ver Elst K, Weets I, Kaufman L, Pipeleers DG, Rottiers R. Use of an islet cell antibody assay to identify type 1 diabetic patients with rapid decrease in C-peptide levels after clinical onset. Belgian Diabetes Registry. *Diabetes Care*. 23:1072-1080, 2000
12. Weets I, De Leeuw IH, Du Caju MV, Rooman R, Keymeulen B, Mathieu C, Rottiers R, Daubresse JC, Rocour-Brumioul D, Pipeleers DG, Gorus FK; Belgian Diabetes Registry. The incidence of type 1 diabetes in the age group 0-39 years has not increased in Antwerp (Belgium) between 1989 and 2000: evidence for earlier disease manifestation. *Diabetes Care*. 25(5): 840-6, 2002
13. Pipeleers D, Keymeulen B, Chatenoud L, Hendrieckx C, Ling Z, Mathieu C, Roep B, Ysebaert D. A view on beta cell transplantation in diabetes. *Ann N Y Acad Sci.*; 958:69-76. Review, 2002
14. Weets I, Siraux V, Daubresse JC, De Leeuw IH, Fery F, Keymeulen B, Krzentowski G, Letiexhe M, Mathieu C, Nobels F, Rottiers R, Scheen A, Van Gaal L, Schuit FC, Van der Auwera B, Rui M, De Pauw P, Kaufman L, Gorus FK; Belgian Diabetes Registry. Relation between disease phenotype and HLA-DQ genotype in diabetic patients diagnosed in early adulthood. *J Clin Endocrinol Metab.*; 87(6):2597-605, 2002
15. Decochez K, De Leeuw IH, Keymeulen B, Mathieu C, Rottiers R, Weets I, Vandemeulebroucke E, Truyen I, Kaufman L, Schuit FC, Pipeleers DG, Gorus FK; Belgian Diabetes Registry. IA-2 autoantibodies predict impending type I diabetes in siblings of patients. *Diabetologia.*; 45(12):1658-66. Epub 2002 Nov 12, 2002
16. Movahedi B, Keymeulen B, Lauwers MH, Goes E, Cools N, Delvaux G. Laparoscopic approach for human islet transplantation into a defined liver segment in type-1 diabetic patients. *Transpl Int.*; 16(3): 186-90. Epub 2003 Feb 15, 2003
17. Gillard P, Ling Z, Lannoo M, Maes B, Maleux G, Pipeleers D, Keymeulen B, Mathieu C. Beta-cell transplantation restores metabolic control and quality of life in a patient with subcutaneous insulin resistance. *Diabetes Care.*; 27(9):2243-4, 2004
18. Decochez K, Truyen I, Van der Auwera B, Weets I, Vandemeulebroucke E, De Leeuw IH, Keymeulen B, Mathieu C, Rottiers R, Pipeleers DG, Gorus FK; Belgian Diabetes Registry. Combined positivity for HLA DQ2/DQ8 and IA-2 antibodies defines population at high risk of developing type 1 diabetes. *Diabetologia*; 48(4): 687-94, 2005
19. Keymeulen B, Vandemeulebroucke E, Ziegler AG, Mathieu C, Kaufman L, Hale G, Gorus FK, Goldman M, Walter M, Candon S, Schandene L, Crenier L, De Block Ch, Seigneurin JM, De Pauw P, Pierard D, Weets I, Rebello P, Bird P, Berrie E, Frewin M, Waldmann H, Bach JF, Pipeleers D, Chatenoud L. Insulin needs following CD3 antibody therapy in new-onset type 1 diabetes. *NEJM*; 352 (25): 2598-608, 2005

20. Van Kampen CA, Van de Linde P, Duinkerken G, Van Schip JJ, Roelen DL, Keymeulen B, Pipeleers DG, Claas FH, Roep BO. Allooreactivity against repeated HLA mismatches of sequential beta cell grafts transplanted in non-uremic type 1 diabetic patients. *Transplantation*; 80(1): 118 -26, 2005
21. Pinkse G, Tysma O, Bergen C, Kester M, Ossendorp F, van Veelen P, Keymeulen B, Pipeleers D, Drijfhout J, Roep B. Autoreactive CD8 T cells associated with beta cell destruction in type 1 diabetes. *Proc Natl Acad Sci U S A*. 2005; 102(51): 18425-30
22. Maleux G, Gillard P, Keymeulen B, Pipeleers D, Ling Z, Heye S, Thijs M, Mathieu C, Marchal G. Feasibility, Safety, and Efficacy of Percutaneous Transhepatic Injection of {beta}-Cell Grafts. *J Vasc Interv Radiol*. 2005 Dec; 6(12): 1693-7
23. Decochez K, Rippey R, Miller J, De Smet M, Yan K, Matthijs Z, Riffel K, Song H, Zhu H, Maynor H, Tanaka W, Johnson-Levonas A, Davies M, Gottesdiener K, Keymeulen B, Wagner J. A dual PPAR alpha/gamma agonist increases adiponectin and improves plasma lipid profiles in healthy subjects. *Drugs R D*. 2006.7(2): 99-110