

Vanderzwalmen Pierre

Professional experience

1978-1988

Work for IRSIA: Scientific Research Institute for Industry and Agriculture.

Faculty of Veterinary Medicine: University of Liege .

Obstetric and reproduction department

Director: Prof. Ectors F.

Collaborators: Dr Massip A. - Dr Beckers JF.

Research in the field of embryo transplantation with mice and cattle embryos.

1. Cryopreservation of mice and cattle embryos :
 - establishment of slow protocol
 - establishment of ultra-rapid cryopreservation protocol
 - obtain the first live birth of vitrified mice and bovine embryos in the world.**
 - Analysis of the effect of "in vitro" culture on the capacity of mice and bovine embryo to survival after cryopreservation.
 - Collaboration with Dr Leroy director of the IVF unit of St Pierre Hospital - Brussel*
2. Morphologic and morphometric analysis of the bovine embryo from the zygote to the blastocyst stage. *Collaboration with Prof. Mulnard director of the anatomy department of the ULB (French speaking University of Brussel)*
 - Cinematographic study the hatching process **(first world publication on this subject)**
 - Electronic microscopy analysis of the cellular junction of the bovine blastocyst
3. Introduction in 1985 of micromanipulation techniques for:
 - production of monozygote twins from cattle embryos **(first in Belgium)**
 - start a project for the production of identical calf by nuclear transfer of embryonic cells
4. IVF with cattle embryos
 - In vitro maturation, sperm preparation, IVF, embryo culture.
5. Protein purification Research of a protein with lactogene and growth hormone activity using different methods: column purification, HPLC, electrophoresis, , Radio Immunoassay, Radio receptorassay.

1988 – 2003

Human In vitro fertilization uit

*Schoysman Infertility Management Foundation
Van Helmont Hospital
1800 Vilvoorde*

Director : Prof. Schoysman

*Laboratory director of an Human In Vitro Fertilisation programme.
Clinical Embryologist in the SIMAF Laboratory*

IVF attempts in 1988:	150
IVF attempts in 1989:	320
IVF attempts in 1990:	320
IVF attempts in 1991:	360
IVF attempts in 1992:	380
IVF attempts in 1993:	450
IVF attempts in 1994:	540
IVF attempts in 1995:	600
IVF attempts in 1996:	750
IVF attempts in 1997:	720
IVF attempts in 1998:	700
IVF attempts in 1999:	540
IVF attempts in 2000:	550
IVF attempts in 2001:	550
IVF attempts in 2002:	570
IVF attempts in 2003:	400

1989 : **Obtained the first pregnancy in Europe** after micro-assisted fertilization in case of severe semen quality using the partial zona dissection (PZD) technique.

1993, **Obtained the first world pregnancy** after application of the ICSI with testicular spermatozoa.

1995, Obtained the first fertilization after injection of spermatids and the **second worldwide birth** after spermatid injection.

1995 introduce the long term culture protocol with transfer at day 5. **(first in Europe)**

1997, Obtained the first **birth in the world** after vitrification of blastocysts

2003 – 2009

Activity one :

Part time employee in CHIREC IVF unit

*Centre Hospitalier Interrégional Edith Cavell (CHIREC)
Rue Wayez ,35, Braine l'alleud
Rue Edith Cavell, 32, 1180 Brussel*

Director : Dr Lejeune B.

Introduce in 2008 the IMSI technique **(first in Belgium)**

Activity two :

Freelance activities as consultant in assisted reproduction technologies

Main part of the activities :

IVF center of Prof. Zech Bregenz Austria

Activities: 1200 cycles / year

Scientific coordinator

Other consultant activities in other worldwide center

2010

- 1- Independent Freelance in Scientific consultant in Assisted Reproduction Technology.
Consultant in CHIREC
- 2- PHD thesis in the veterinary faculty of university of Liege

Additional activities

- Participation since 2001 years as **teacher in a DESS** course in Biology of Reproduction at the University of Descartes (Paris V)
 - session: cryopreservation of embryos.
- **Scientific consultant** for factories ELLIOS, CCD, Irvine, Ferticult, Cryo biosystem
- **Instructor and co-ordinator** of both Belgian and international workshop on ICSI and cryopreservation (USA, Marocco, Greece, Spain, Tai wan, Turkey, South africa , France, Japan,.....)
- **Reviewer of submitted manuscripts** for publication in the journals of:
 - Human Reproduction,*
 - Fertility Sterility,*
 - Reproduction Biomedicine Online.*
 - Reproduction*

Memberships

1992	ESHRE	Ordinary membership
1994 –2000	Scientific and organisational member of the society	andrology in the Nineties
1991-1999	European Society for Engineering and Medicine	Ordinary membership
1995- 2003	Alpha: International Society of clinical embryologists	Ordinary membership
1997-2000	Vlaamse Vereniging voor Clinisch Embryologen (National Society for clinical embryologists)	Ordinary membership
1997-1999	American Society of Andrology	Ordinary membership
1998-2006	A PART (International association of private assisted reproductive technology clinics and laboratories	Scientific co-ordinator
1999	Belgian Study Group for Fertility and Sterility	Ordinary membership
2002	Blefc0 (association des biologistes français	member
2005	ABEF	Vice president

**International Scientific co-operator and consultant in Assisted Reproduction
Technology. (1990 – 2000)**

Prof. Cittadini	University of Palermo	Palermo	Sicily.	1990-1992- 1994-1995
Prof Birkenfeld-Dr Yemini	Diamond institute	Irvington	USA	1994-1996
Dr Kilani	The Farah Hospital	Amman	Jordan	1991-1993
Dr Lopez	CENAFLES	Cochabamba	Bolivia	1994
Prof Guérin	University of LYON	Lyon	France	1994
Dr Joly	Clinique Tertre Rouge	Le Mans	France	1994
Dr Zerah	Hopital de la D'HUYS	Paris	France	1994-95-96
Dr Cassuto	Laboratoire Drouot	Paris	France	1994-96-97- 98-99
Dr Zech	IVF-ET center	Bregenz	Austria	1994,95,96,97, 98,99
Dr Bastide	Hopital St Antoine	Rouen	France	1995
Dr Karahman	Sevgi Hospital	Ankara	Turkey	1995
Dr Chaban	Belgo-libanon center	Tripoli	Lebanon	1997
Prof Vatman	University of Santiago	Santiago	Chili	1997
Prof Macek	University of Prague	Prague	Czech Republic	1997-1999
Dr Takahashi- Dr Mukaida	HART clinic	Hiroshima	Japan	1997- 1999

Consultant for two French factories ELLIOS and CCD providing culture medium

Instructor and co-ordinator of both Belgian and international trainees (USA, Marocco, Greece, Spain, Tai wan, Turkey, South africa) /practitioners in the SIMAF laboratory.

Presentations as invited speaker (>>>> 2005)

10th postgraduate course on fertility sterility (1989)

The role of in vitro manipulation of seminal plasma

St Margharitta Ligure (Italy) Italian Society of fertility

10th postgraduate course on fertility sterility (1991)

Seminal fluid quality and assisted conception

Firenze (Italy) Italian Society of fertility

Course to post-graduate students: University of Palermo (Sicily) (1991)

- *Seminal fluid quality and preparation of the seminal plasma*
- *Micromanipulation of gamete in function of the quality of the plasma seminal*
- *Preimplantation diagnostic*

The Farah Hospital Dr Kilani Amman Jordan (1991)

The infertile male

Free university of Brussel: University hospital of Brugman (Belgium) (1993)

Traitement des infertilité masculine sévère dans un programme de FIV

University of Leuven (Belgium) European workshop on micromanipulation (1993)

Value of PZD on couples suffering from male subfertility

International symposium on male infertility and assisted reproduction (Genk) Belgium (1993)

Semen defect: latest development and alternatives for handling male infertility by IVF.

Institut Médical Edith Cavell (Belgium) (1994)

La place de l'ICSI dans la fécondation in vitro

Centre hospitalier de CLAMART: Prof Frydman (Paris) France (1994)

Implication de l'ICSI dans les stérilité masculines

CENAFLES Dr Lopez Cochabamba (Bolivia) (1994)

- *Technique of sperm preparation in an IVF program*
- *Treatment of male gamete micromanipulation PZD, SUZI, ICSI*

Clinique de Tertre Rouge (Le Mans) France (1994)

ICSI et sperme testiculaire

Diamond Institute (Irvington) USA (1994)

Micromanipulation of gametes in case of male infertility

Polyclinique "La renaissance" (Marseille) 1995

L'injection Intracytoplasmique du spermatozoïde

Workshop on Micromanipulation (Vienne) Austria 1995

Technical aspects of ICSI

Hands-on-Workshop: Mikromanipulation an Gameten (Insbruck) Austria (1995)

Dreiländertagung Fertilität und Sterilität

Intracytoplasmic sperm injection: how to proceed?

Workshop on Micromanipulation : Andrology in the nineties (Genk) Belgium 1995

Clinique Saint Antoine (Rouen) France (1995)

ICSI et infertilité masculine

Soirée débat: L'injection intra cytoplasmique de spermatozoïdes: micro méthode ou macro révolution (Paris) France (1995) Dr Zerah

Apport de la microfécondation assistée dans le traitement de la stérilité masculine.

University of Chili, Faculty of medicine (Santagio) Chili (1996)

Avances en el tratamiento de la infertilidad de causa masculina

Centre Belgo-Libanais Dr Chaban (Tripoli) Libanon (1996)

Implication masculine dans l'infertilité du couple

Clinique du Parc-Laboratoire de biologie du Hainaut (1996)

Traitement de l'infertilité masculine

Dr Takahashi: HART clinic (Osaka) Japan (1996)

Immature sperm conception

Congress "le azoospermia alle soglie de 2000" (Rome) Italy (1997)

Immature sperm injection

Cercle de Gynécologie "Van Gogh" Brussel (1997)

Manipulation des cellules spermatiques immatures

la, procréation médicalement assistée en 1997 (Le cateau) France (1997)

Injection intra cytoplasmique du sperme épидидymaire et testiculaire

International workshop on immature sperm conception" (Rome) Italy (1997)

Spermatid injection: influence of the testicular pathology and type of injected cells

University of Palermo

The laboratory for in vitro fertilization: state of art and controversies (Palerme) (1997)

Use of spermatids: classification, identification, where are we now?

Laboratoire d'analyse Médicale Drouot (Paris) France 1998

Quelle évolution pour la biologie en AMP?

8e Salon de gynécologie pratique (Paris) France (1998)

Les résultats de l'ICSI: Relation avec l'origine du sperme et le stade du gamète, iatrogénicité)

International symposium and Workshop on the testis (Thessaloniki) Greece, (1998)

Immature spermatozoa

Clinique du Parc (Valencienne) France (1999)

Le biologiste à l'aube du troisième millénaire.

Freie Universität (Berlin) Germany Februar (2000)

Jahrestagung "Physiologie und Pathologie der Fortpflanzung".
Thema: "Zukunftsanspekte der ICSI"

Journée de la société de médecine de la reproduction (SMR)

Endocrinologie-Gynécologie-AMP. Mai 2003 Bordeaux

2 présentations : Vitrification des embryons.
Validité des milieux de culture.

Centre hospitalier régional de Namur : 6^{ième} réunion de st-Gérard Brogne october 2002

1 présentation : Les blastocystes : quel avenir ?

4th Biennial Alpha Conference and 8th Meeting of Andrology in the 2000's. (World association of the biologists in assisted reproduction)

Antwerp, September 2003

1 presentation : The human embryo - Vitrification of oocytes and embryos.
Course director of the session concerning cryopreservation of embryos.

5th World conference A-PART: The international Association of Private Assisted Reproductive Technology Clinics and Laboratories.

Tokyo October 2003

1 presentation: Rapid and Ultra-rapid vitrification procedure: Factors affecting the results.

Austrian Society of fertility and Sterility:

Bregenz October 2003

1 presentation: Embryo culture to the blastocyst stage: the final criteria to select embryos with the best developmental potential.

Gezamenlijke wetenschappelijke vergadering VVKE-KLEM

November 2003 UZA Antwerp

1 presentation: Cryopreservatie van semen and embryo's.

Turkish Society of sterility and infertility.

January 2004 (Istanbul)

1 presentation: vitrification of blastocysts: factors affecting the results.

Cryobiology and Cryopreservation of human gametes and embryos. European Society of Human Reproduction (ESHRE)

VUB Brussel March 2004

1 presentation: Vitrification: an interesting method for the cryopreservation of human embryos?

Journée de la société de médecine de la reproduction (SMR)

Paris Mai 2004

1 presentation: La vitrification: de l'ovocyte au blastocyste.

Inauguration of the new IVF unit of the Polyclinique de Parc

Valencienne Juin 2004

1 presentation: L'avenir des techniques de PMA.

Clamart ART : Pregnancy rates in IVF-ET : 60% and beyond ?

Paris June 2004

1 presentation: Embryo freezing : « sensitive points in Biology »

Austrian Society of fertility and Sterility:

Maria Taferl October 2004

2 presentations:

- Embryo culture to the blastocyst stage: the final criteria to select embryos with the best developmental potential.
- The effect of cell volume-stress during exposure of MII oocytes to cryoprotectants on their further development

Presentation at the time of the handing-over of the diplomas of master in embryology at university DEXEUS of Barcelona

Barcelone October 2004

1 presentation: Vitrification of oocytes and embryos: where are we now?

21^{ième} congrès de la société d'andrologie de langue française (SALF)

Clermont Ferrant december 2004

1 presentation: La vitrification: méthode d'avenir pour le tissu testiculaire et les spermatozoïdes

First scientific workshops of the Moroccan association of the biologists of the reproduction

Casablanca January 2005

2 Presentations:

- Transfert d'un seul embryon: choix de la durée de mise culture , jour 3 ou jour 5.

- Congélation lente ou vitrification pour la cryopréservation des gamètes et embryons: choix de la méthode pour chaque stade de développement embryonnaire précoce.

Société de médecine de la reproduction (SMR)

Paris January 2005

1 presentation: La congélation dans tous ses états.

Réunion du Grand Ouest (Société SERONO)

Ploermel March 2005

1 presentation: La vitrification: une alternative à la congélation lente

Bichat Hospital (Prof. Azout A)

Paris March 2005

1 presentation: Culture prolongée, cryopréservation : quelles stratégies ?

Hopital Cochin (Prof. Jouannet P)

Paris March 2005

1 presentation: Culture prolongée: une voie vers la réduction des grossesses multiples.

Centre hospitalier régional de Namur

Namur October 2005

1 presentation : Les blastocystes au jour 5 et la vitrification

An average of 6 invitations a year for participation to congress since 2005