Aspire

MASTERCLASS

STATE OF THE ART IN IVM 2018

Thursday-Saturday
27th – 29th September 2018,
Novotel Saigon Centre,
Ho Chi Minh City, Vietnam

WELCOME MESSAGE

Dear Colleagues,

Welcome to the fifth ASPIRE Masterclass on In-vitro maturation (IVM) of oocytes to be held in Ho Chi Minh City, Vietnam, from the 27th to the 29th of September 2018.

There is an enormous variability on how IVM is defined and practiced worldwide. This variation is reflected in the types of patients recruited, the pre-treatment medication used, and the methods implemented in the embryology laboratory. While IVM is still considered a research technique for niche indications in Europe and the USA, there are important promoter centers in Vietnam, Australia, Belgium, Canada, Korea, Japan, etc. where significant expertise has been acquired over the years.

Many of our colleagues are not aware of the advances in immature oocyte biology and on the potential of IVM as a patient-friendly technique in ART. The culture improvements over the last few years have positively impacted the expectations of IVM as a safer technology than classical IVF in patients with an increased antral follicle count and AMH.

In the past decade, several thousands of IVM cycles have been conducted by our group in Ho Chi Minh City. Reasonable results have been recorded and thousands of children have been born here. Recently, new clinical and culture protocols have been applied. Embryological and clinical results have been improved substantially.

This Masterclass including demonstrations and discussions aims to cover the latest developments of IVM therapy in human. Theoretical and practical overview of clinical and embryological aspects will be discussed. The course is designed for gynecologists and embryologists considering to implement IVM as an alternative technique for different groups of patients, such as PCOS, oncofertility, good ovarian-reserve IVF patients, etc.

We have invited international experts from Europe and Australia, along with local experts who have strong background and expertise on IVM to introduce the most recent developments in IVM and share their clinical experience. This is the first IVM course that will explain the different possibilities to perform IVM to gynecologist and embryologist with the hope to increase the chances for a good outcome for the patient at a low risk.

The Master Class takes 3 days: 2 days of lectures followed by discussions and case studies. The last day is planned for a visit to the local IVFMD Clinic offered to a limited group of attendees who will be able to observe the clinical and laboratory live demonstrations; cases discussion with the local team.

During the two days of lectures, the following objectives will be covered by the experts

- To highlight the biology of small follicle's immature oocytes
- To analyze the pros and cons of different pre-treatment methods
- To be aware of the current validated culture methods for IVM in the embryology lab
- To discuss actual results in terms of live-birth and safety of IVM
- To take a critical discussion about the position that IVM could take in ART program.

Ho Chi Minh City, former name Sai Gon, is the largest city of Vietnam. The city is also the most important tourist hub of the country with the mixed flavor of East and West, contemporary and traditional, cosmopolitan cultures. We welcome you here to enjoy a good time in Sai Gon to exchange the professional knowledge and to explore the beauty of the city of Sai Gon.

With Best Wishes,

Lan Ngoc Vuong MD, PhD
Chair, ASPIRE 5th Masterclass

INVITED SPEAKERS

Dr. Vuong Thi Ngoc Lan, Chairperson, Aspire 5th Masterclass
Chief Gynaecologist and Fertility Specialist
IVFMD, My Duc Hospital, Ho Chi Minh City

Dr. Vuong Thi Ngoc Lan is currently a lecturer and the Deputy Head at the Department of Obstetrics and Gynecology at the University of Medicine and Pharmacy Ho Chi Minh City, Vietnam.

She was among the first IVF team in Vietnam in 1997 and has experienced more than 20,000 ART cycles since then, including conventional IVF, ICSI, oocyte donation, oocyte freezing, and frozen embryo transfer. She has started to do in-vitro maturation (IVM) of oocytes since 2006. Up to now she has involved in more than 3,000 IVM cycles and many studies in IVM.

Dr Vuong Thi Ngoc Lan has also been involved in training and technical support for the establishment of most IVF centers in Vietnam and is also a senior lecturer of many ART training courses in Vietnam.

Dr Lan has had more than 30 articles published in local and international journals. She has been invited as a speaker for several regional and international meetings.

Professor Dr. Johan Smitz, Co-Chairperson, Aspire 5th Masterclass
Free University Brussels (VUB)
Brussels, Belgium

Prof Dr Johan Smitz is based at the Centre for Reproductive Medicine (CRG) at the Free University Brussels (VUB), Belgium. He graduated as M.D. in 1980 and obtained his specialty in Clinical Pathology/Biochemistry/ Radio-Isotopes in 1986. He sub-specialised in Reproductive Medicine and got his PhD in 1993. He obtained also a degree in Andrology from the University Pierre et Marie Curie- Paris VI (France). From 1986 onwards, He has been the head of the Endocrine Laboratory of the University Hospital. He became Professor of Endocrine Physiology and Reproductive Medicine in 1997 at VUB. He founded the Follicle Biology (FOBI) Research Laboratory in 1997 and is a member of the Steering Committee of the Centre for Reproductive Medicine at UZ-Brussel. His main activities are directed towards the implementation of basic techniques related to oocyte biology from the research laboratory into the clinical activities.

Dr. Ho Manh Tuong
Leader, IVFMD Group
Ho Chi Minh City, Vietnam

Dr. Ho Manh Tuong is the leader of IVFMD Group, which operate four IVF centers in Ho Chi Minh City, Vietnam. He is also Director of IVFAS, An Sinh Hospital. He has been working in the field of assisted reproductive technology since 1997, when he joined the first IVF team in Vietnam.

He is Deputy Editor of Vietnamese Journal of Obstetrics and Gynecology. He serves as Secretary General for Ho Chi Minh City Society for Reproductive Medicine (HOSREM). He is also a board member of VAGO (Vietnam Association of Gynecology and Obstetrics). Dr. Ho Manh Tuong is board member (2012-2018) and treasurer (2016-2018) of ASPIRE.

Dr. Ho Manh Tuong and his group have had more than 15 publications in international journals including NEJM, Human reproduction, Fertility and Sterility, RBMO... He has more than 100 articles and book chapters published in Vietnamese scientific journals and books. He has been invited speaker of more than 30 international meetings. His recent interests are cryopreservation, in-vitro maturation of oocyte and quality management in IVF.

INVITED SPEAKERS

Ms. Hoang Anh Lee
My Duc Phu Nhuan Hospital
Ho Chi Minh City, Vietnam

Anh got her master in Animal Physiology in 2011 at University of Natural Science at Ho Chi Minh City. Anh has been an embryologist for 8 years. During that time, she worked in IVF Van Hanh (Van Hanh Hospital), IVFAS (An Sinh Hospital), IVFMD (My Duc Hospital) and now she is the Chief embryologist at IVFMD-PN (My Duc Phu Nhuan Hospital). Her major is in vitro maturation and embryo culture. She has participated in several researches about In vitro maturation during the last 3 years. She got some presentations about IVM at ASPIRE and IVF Expert meeting in Vietnam. She is a member of HOSREM (Ho Chi Minh City Society for Reproductive Medicine) and also has experience in training IVF for Vietnamese and foreigner trainees (Singapore, Thailand, Hong kong, Indonesia, Malaysia...)

Professor Robert B. Gilchrist
NHMRC Senior Research Fellow
Director of Research in the School of Women's & Children's Health
UNSW Sydney
Sydney, Australia

Professor Robert Gilchrist is an oocyte biologist whose research encompasses basic and applied aspects of ovarian folliculogenesis, oocyte maturation and preimplantation embryo development. He conducts discovery research on oocyte-somatic cell interactions as a determinant of subsequent embryonic development. He recently identified cumulin, a heterodimer of GDF9 and BMP15, and showed that it regulates oocyte quality. Dr Gilchrist also studies new biomarkers of oocyte quality. In addition he manages an applied research program with the objectives of improving oocyte IVM technologies in animals and women. Currently a number of his IVM inventions are undergoing clinical evaluation.

Professor Gilchrist completed his D.Sc.Agr. (Magna cum laude) in 1996 on oocyte maturation at the University of Göttingen in Germany. He then returned to Australia, where he spent 18 years at the University of Adelaide, initially as a post-doctoral fellow and then as a research group leader. He is currently Director of Research at the School of Women's and Children's Health at the University of New South Wales Sydney, Australia. He is an NHMRC Senior Research Fellow. He has published →110 peer-reviewed papers including 20 reviews/chapters. He currently has an H-index of 45 with →7,000 citations [Google Scholar].

Dr. Sergio Romero
Free University Brussels (VUB)
Brussels, Belgium

Sergio Romero is a Biologist graduated from San Marcos National University, Lima Peru. He obtained his master and PhD degrees at The Free University of Brussels under the guidance of Prof Johan Smitz.His main interest is the design and optimization of culture environments for the in vitro development of mammalian follicles and oocytes, in particular for In vitro Maturation of Human oocytes. He is currently a Senior Research consultant for Follicle Biology Laboratory of Prof J. Smitz, Research Director and Embryologist at Centro de Fertilidad y Reproducción Asistida, Lima, Peru and an Associated Researcher at the Laboratory of Reproductive biology and Fertility Preservation at Cayetano Heredia University, Lima, Peru.

SCIENTIFIC PROGRAMME

Thursday, 27th September 2018		
0800hrs - 0830hrs	**Registration**	
0830hrs - 0845hrs	**Welcome Remarks By Masterclass Chairperson** Why Taking up IVM Treatment into the Menu of ART?	Lan N Vuong
0845hrs - 0915hrs	**Historical Perspective** Evolution of the IVM Practice Over the Last 25 Years	Tuong M Ho
0915hrs - 0930hrs	**Definition** The Importance of Defining What is IVM	Johan Smitz
0930hrs - 1005hrs	**The Physiological Basis of Developmental Capacity** What Does the Oocyte Need, to Become a Competent Embryo?	Robert Gilchrist
1005hrs - 1020hrs	**Discussion**	
1020hrs - 1050hrs	Coffee-break	
1050hrs - 1115hrs	**Patient Selection for IVM** Who is the Patient That Can Benefit from IVM?	Lan N Vuong
1115hrs - 1145hrs	**The Rationale for Patient Pretreatment** How to Pre-Treat the Patient for the IVM Oocyte Pick-Up	Johan Smitz
1145hrs - 1220hrs	**The Animal Models That Inspired Application of IVM in Human** From Mouse to Bovine Model	Robert Gilchrist
1220hrs - 1235hrs	**Discussion**	
1235hrs - 1335hrs	Lunch	
1335hrs - 1410hrs	**The General Culture Aspects of IVM** Culture Principles That Lead to an Improved Maturation System (Capa)	Johan Smitz
1410hrs - 1445hrs	**Results From** Embryo Quality in IVM Cultures	Anh H Le
1445hrs - 1520hrs	**Organizing the Laboratory for Capa-IVM** Culture Aspects of Oocyte-Cumulus From 2-7Mm Follicles In PCOS	Sergio Romero
1520hrs - 1535hrs	**Discussion**	
1535hrs - 1605hrs	Coffee-break	
	Panel Discussion	Tuong M Ho, Johan Smitz, Robert Gilchrist Chaired by Lan N Vuong
1605hrs - 1635hrs	**Clinical- Is IVM Clinically Advantageous and Safe?**	
1635hrs - 1705hrs	**Laboratory- IVM's Applicability in a Routine ART Lab**	
1705hrs - 1735hrs	**Future Of IVM- Additives to Culture Media**	
1830hrs - 2030hrs	Welcome Dinner	

SCIENTIFIC PROGRAMME

Friday, 28th September 2018		
	Video Demonstrations on IVM Clinic and Embryology	
0900hrs - 0930hrs	**How to Do Immature Oocyte Retrieval**	Lan N Vuong
0930hrs - 1000hrs	**How to Handle Immature Oocytes After Retrieval**	Sergio Romero and Anh H Le
1000hrs - 1030hrs	**How to Culture And Do IVF With Immature Oocytes**	Sergio Romero and Anh H Le
1030hrs - 1045hrs	**Discussion**	
1045hrs - 1115hrs	**Case Studies of IVM Cases With Clinical And Lab Details**	Lan N Vuong and Anh H Le
1115hrs - 1215hrs	Lunch	
1215hrs - 1345hrs	**Meet The Experts**	All Speakers
	• Indications for IVM • Patient Pretreatment Modalities • Oocyte Retrieval Out of Small Follicles: Technique • The Maturation Culture Steps of CAPA and IVM • The Mode of Fertilization : IVF or ICSI? • The Embryo Culture Results • Fresh or 'Deferred' Embryo Transfer ? • Safety Aspects of IVM: The Importance for a Registry • Potential Socio-Economic Impact of IVM in Asian Countries	
1345hrs - 1405hrs	**Concluding Remarks**	Lan N Vuong and Johan Smitz

Saturday, 29th September 2018 - Live IVM Workshop		
0900hrs - 1100hrs	**Live Demo of Oocyte Pick-Ups and Lab Preparation At IVFMD**	Lan N Vuong and IVFMD Team
1100hrs - 1200hrs	**Presentation of Cases - Clinical Details and Q&A Session**	Lan N Vuong and IVFMD Team
1200hrs - 1300hrs	Lunch	
1300hrs - 1430hrs	**Live Demo of Handling Immature Oocytes and Culture System**	Tuong M Ho and IVFMD Team
1430hrs - 1530hrs	**Presentation of Cases - Lab Details and Q&A Session**	Tuong M Ho and IVFMD Team
1530hrs - 1600hrs	**Final Discussion: Experience on How to Set-up a System for an IVM Programme**	Tuong M Ho, Lan N Vuong and Anh H Le

NOTES

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