Ming-Song Tsai 禁明松 (P1)



CURRICULUM VITAE

Ming-Song Tsai

Chief-supervisor, Taiwan Association of Obstetrics and Gynecology Chief of Department of Obstetrics and Gynecology, Cathay General Hospital, Taipei City, Taiwan

Professor of School of Medicine, Fu Jen Catholic University, New Taipei City, Taiwan

Education

1978.9-1985.6 Medical School, China Medical College, Taichung City, Taiwan

Special research interests

Human amniotic fluid stem cells
Prenatal diagnosis and high-risk pregnancy
Magnesium transporter genes

Editorial Boards

Taiwanese Journal of Obstetrics and Gynecology Journal of Medical Ultrasound Obstetrics & Gynecology Science

Awards

Residential Kyorin Award by Taipei Medical Association Medical Contribution Award (2020 T.C.M.A)

Magnesium Deficiency during Pregnancy

Ming-Song Tsai Chair, Department OBS&GYN, Cathay General Hospital, Taipei Professor, School of Medicine, Fu Jen Catholic University, Taipei City, Taiwan Chief-supervisor, Taiwan Association of Obstetrics and Gynecology

Magnesium (Mg) is a widespread enzyme cofactor for the transmission of nerve impulses, muscular activity, energy production, and the synthesis of DNA and RNA. The formation of new tissues (maternal and fetal) during pregnancy requires higher Mg intakes than that of the normal non-pregnant woman of comparable age. The mean dietary magnesium intakes of pregnant women were likely much lower than that of recommended dietary allowances. Magnesium is involved in the regulation of numerous physiological functions during pregnancy for fetal development. Recent reports indicated that Mg deficiency might contribute towards placental insufficiency, and thus to the development of preeclampsia, preterm labor and intrauterine growth restriction. In addition, the Mg deficiency has also found be associated with insulin resistance during pregnancy and to the development of gestational diabetes. However, the possible role of Mg deficiency in the genesis of above adverse pregnancy outcomes has not been well known. Increasing evidence demonstrated that placentation defect, especially at the critical time period of late first trimester and/or early second trimester, would lead to develop subsequent pregnancy complicated with preeclampsia, preterm birth and fetal growth restriction. We found that the maternal magnesium levels were significantly decreased in a stepwise mode as the number of gestational weeks increased, with the mean magnesium levels of 2.22 mg/mL for the first trimester, 1.78 mg/mL for the second trimester and 1.63 mg/mL for the third trimester, respectively (p<0.001). Our data indicates that pregnant women in our cohort population are in a magnesium deficiency status since the second trimester. However, Mg2+ deficiency may still occur in pregnant women despite normal plasma concentration, because intracellular levels may decrease to maintain the extracellular concentration. Hence, the determination of the intracellular Mg2+ status by magnesium transporter gene expression level, instead of the extracellular maternal plasma Mg2+ concentration would be preferable for the magnesium deficiency detection. We have established a platform to determine Mg2+ status of five Mg transporter genes, SLC41A1, CNNM2, MagT1, TRPM6, and TRPM7. The gene expression level is determined by quantitative real-time PCR. Whether or not the magnesium transporter genes expression level in the first or early second trimester become an effective marker for the prediction of adverse obstetrical outcomes is an interesting field to be explored in the future.

Seung Joo Chon (P2)



CURRICULUM VITAE

Seung Joo Chon

Associate professor, Gachon Medical School, Gil Hospital

Education

Time period School		Major	Degree	
2002.03.01-2008.02.22	Chonbuk National University	Medicine	Bachelor's degree	
2010.03.01-2012.08.31	Gachon University	Obstetrics and Gynecology	Master's degree	
2013.03.01-2015.02.26	Gachon University	Obstetrics and Gynecology	Degree of doctor	

Profiles

Time period	Institution	Position
2008.03-2009.02	Gil Hospital, Gachon University	Intern
2009.03-2013.02	Gil Hospital, Gachon University	Resident
2013.03-2014.02	Severance Hospital, Yonsei University	Fellow
2014.03-2015.02	Severance Hospital, Yonsei University	Clinical Research Fellow
2015.03-2016.09	Gil Hospital, Gachon University	Clinical Assistant Professor
2016.10-2021.08	Gil Hospital, Gachon University	Assistant Professor
2021.09-	Gil Hospital, Gachon University	Associate Professor

Working Experiences

A member of

- American Society for Reproductive Medicine
- American Society for Reproductive Medicine
 European Society of Human Reproduction and Embryology
 The Korean Society of Obstetrics and Gynecology
 The Korean Society of Menopause
 The Korean Society of Reproductive Endocrinology
 The Korean Society of Fertility Preservation
 The Korean Society for reproductive Medicine
 The Korean Society for Endometriosis

- The Korean Society of Gynecologic Endoscopy
- The Korean Society for Bone and Mineral Research

Premature ovarian insufficiency. Can we identify this beforehand?

Premature ovarian insufficiency (POI) is a pathological condition of ovarian reserve exhaustion before the age of 40 years, manifesting as amenorrhea or oligomenorrhea, hypoestrogenism, and elevated serum follicle-stimulating hormone concentrations (>25 mIU/mL). The prevalence of POI is approximately 1%, with some variation depending on ethnicity. Patients with POI have an increased risk of cardiovascular disease, osteoporosis, and cognitive impairment. They may also have elevated total and cancer-specific mortality rates. POI is a highly heterogeneous disease and originates from iatrogenic, karyotypic, and genetic factors. However, the etiology of POI remains unknown in approximately 90% of cases. The occurrence of POI in young women of reproductive potential is difficult to predict because clinical symptoms preceding the disease have not been reported. In patients with early ovarian insufficiency, attempts at pregnancy are made through re-transplantation and subsequent in vitro activation treatment after an ex vivo culture by harvesting whole ovaries or ovarian tissues/follicles. However, patients with POI whose ovarian function cannot be restored are unlikely to have successful results with these methods. Therefore, a diagnostic approach is sought to screen for the abnormal deterioration of ovarian function and advise patients with high risks of POI for family planning.

Turner syndrome is the most frequent hereditary cause of POI and is occasionally observed in women with POI, with symptoms typically appearing before menarche. In karyotyping, Turner syndrome is characterized by an entire or partial deletion of one X-chromosome, resulting in oocyte loss throughout childhood. Together with infertility, Turner syndrome is also associated with short height, delayed puberty, ovarian dysgenesis, hypergonadotropic hypogonadism, congenital cardiac abnormalities, endocrine disorders, osteoporosis, and immunological problems. Most women with Turner syndrome have primary or secondary hypergonadotropic hypogonadism, which necessitates hormone replacement therapy. Management of POI would benefit from a diagnostic marker that distinguishes POI induced by Turner syndrome from POI produced by other causes.

We analyzed the miRNA expression profile of POI patients with or without Turner syndrome, isolated urinary exosomes, selected putative miRNAs, and verified them in a larger patient cohort and a POI mouse model. Considering that early detection of POI is vital for preserving fertility, diagnostic methods for screening patients with POI can improve the management of the condition. Herein, we have also identified miRNA biomarkers that can be potentially used to develop rapid and straightforward diagnostic methods for POI screening. Here, we are to go thoroughly on POI and share my experience identifying urinary exosome miRNAs specified for POI, which might be used as potential diagnostic markers in patients with POI.

Kiyoko Kato (P3)



CURRICULUM VITAE

Kiyoko Kato, M.D., Ph.D

CURRENT POSITION

Department of Obstetrics and Gynecology, Graduate School of Medical Science, Kyushu University, Japan

OTHER POSITIONS

2023~present	Chairperson of the Executive Board of Japan Society of Obstetrics and Gynecology (JSOG)		
2015~2023	Editor-in Chief, Journal of Obstetrics and Gynaecology (JOGR)		
2018~2023	Vice President of the Japan Society for Menopause and Women's Health (JMWH)		
EDUCATION			
1986/3	M.D. graduate from Medical School of Medicine, Kyushu University (Japan)		
1995/1	Ph.D. Medical School of Medicine, Kyushu University (Japan)		
POSITIONS			
1986-1989	Medical Doctor of the department of Obstetrics and Gynecology, Kyushu University		
1989-1992	Research fellow of La Jolla Cancer Research Foundation (USA)		
1992-2009	Medical doctor in Medical Insitute of Bioregulation, Kyushu Úniversity		
1992-1998	Assistant Professor		
1998-2009	Associate Professor (lectuler)		
2009-2012	Associate Professor, Department of Obstetrics and Gynecology, Faculty of Medicine, Juntendo University		
2012-present	Professor, Department of Obstetrics and Gynecology, Graduate School of Medical Sciences, Kyushu University (Japan)		

RESEARCH TOPICS

Gynecologic Oncology Cancer stem cell Signal transduction via Ras-Estrogen pathway Molecular cancer biology

The role of sex chromosomes in egg formation and the mechanism of age-related aging of the endometrium

Kiyoko Kato

Department of Obstetrics and Gynecology, Kyushu University

Currently, as in Taiwan, the problem in obstetrics and gynecology in Japan is the declining birthrate due to late marriages and late childbearing. Some unmarried women are freezing their eggs to prepare for future pregnancies, and the Tokyo Metropolitan Government is subsidizing this practice. The Japan Society of Obstetrics and Gynecology has posted a video on the society's website to let people know about the benefits. LGBTQ has also recently received a lot of attention, and there is a demand for same-sex marriage to be addressed. In this lecture, I will introduce basic research on the role of sex chromosomes in egg formation and the mechanism of age-related aging of the endometrium, in which we have been involved.

Sex differentiation is first genetically determined by sex chromosomes. A set of sex chromosomes is required for gametogenesis in both males and females, as represented by sex chromosome disorders causing agametic phenotypes. Here, we elicit a germ cell-intrinsic effect of sex chromosomes on oogenesis, using a novel culture system in which oocytes were induced from mouse embryonic stem cells (ESCs) harboring XX, XO or XY. In the culture system, oogenesis using XO and XY ESCs was severely disturbed, with XY ESCs being more strongly affected. The culture system revealed multiple defects in the oogenesis of XO and XY mouse ESCs, such as delayed meiotic entry and progression, and mispairing of the homologous chromosomes. In addition, we efficiently converted the XY chromosome set to XX in mouse pluripotent stem (PS) cells. Artificially produced euploid XX PS cells differentiated into mature oocytes in culture with similar efficiency to native XX PS cells. Using this method, we differentiated induced pluripotent stem cells from the tail of a sexually mature male mouse into fully potent oocytes, which gave rise to offspring after fertilization. This is expected to be applied to the preservation of endangered species. We have previously reported the importance of inflammatory cytokine signaling in endometrial aging. We focused our analysis on L17RB, a receptor for IL17, and found that IL1b and JNK signaling induce cellular senescence. Preventing the production of inflammatory cytokines may be useful as a means of preventing age-related decline in pregnancy rate.

Ravi Chandran (P4)



CURRICULUM VITAE

CHANDRAN, Ravi

SUB-SPECIALITY

Maternal – Fetal Medicine

CURRENT POSITION

Consultant OB/GYN Gleneagles Hospital Kuala Lumpur

LEADERSHIP	
1996 – 1998	M' sian Representative Committee RCOG
1997 – 2004	President M'sian Ultrasound Society
1998 – 1999	President Perinatal Society of M'sia
2005 - 2006	President O&G Society of M'sia
2011 - 2012	Scientific Chair, RCOG World Congress
2017 - 2019	President AOFOG
2021	Chair Constitutional Review Board, O&G Society of M'sia
2021 - 2023	FIGO Regional Trustee Asia Oceania
2023 –	FIGO Hon Secretary

Dr Ravi Chandran is currently Consultant Obstetrician and Gynaecologist at the Gleneagles Medical Centre in Kuala Lumpur, Malaysia. Following his Membership of the RCOG UK in 1988 and sub-speciality training in Maternal Fetal Medicine at King's College Hospital London and the John Radcliffe Hospital at Oxford University, he pursued an academic career at the National University of Malaysia as Associate Professor until 1996.

For over a decade, he has served on the Executive Board of AOFOG (Asia Oceania Federation of OBGYN) culminating in his Presidency from 2017-2019. He led the review of the Administrative Manual, Constitution and Web-site and with his inclusive and pragmatic approach, transformed AOFOG into a more efficient, pro-active and member-centric organisation

He was involved in the development of the FIGO Articles of Association (Constitution) in 2019, and in 2020, played an active role as a member of the FIGO Strategic Planning Committee. He was elected as FIGO Trustee for Asia Oceania in 2021 and has been able to align the aspirations of FIGO and AOFOG, resulting in a sound collaborative foundation between the two organisations. He also serves on the Expert Advisory Panel of the BMGF-FIGO Leadership Initiative, where he is actively involved in leadership development in Asia and Africa. He has also led the drive to improve the efficiency of FIGO by streamlining processes and putting in place appropriate SOPs. His passion is governance and leadership empowerment, and he continues to work on these issues within the FIGO framework for the benefit of all members and women across the globe. He was made an Honorary Fellow of TAOG in August 2023 and in October 2023, was elected as Honorary Secretary of FIGO.

Paradigm shifts in Obstetric Practice

Ravi Chandran FIGO Hon Secretary AOFOG Past President

Since the introduction of the "man-midwife" in the 17th century, obstetric practice has changed in leaps and bounds especially in the last 3 decades or so. Significant changes have occurred in the management of the pregnant patient in all 3 trimesters, and the concept of a fourth trimester has now been introduced as part of a life course approach. Much of what we do today has been shaped not only by experience and evidence, but also by litigation, the media and technological advances.

Jeanne Conry (P5)



CURRICULUM VITAE

Jeanne Ann Conry, MD, PhD

President, The Environmental Health Leadership Foundation
Past President, The International Federation of Gynecology and Obstetrics

Past-President, American College of Obstetricians and Gynecologists

E-mail: jeanneconry@gmail.com

Employment/Leadership Positions

2021- 2023	Immediate Past President, the International Federation of Gynecology and
	Obstetrics (FIGO)
2017-present	President, CEO and founder Environmental Health Leadership
2021-2024	The Partnership for Maternal, Newborn and Child Health (PMNCH) ,WHO
2016-2026	Chair, Women's Preventive Services Initiative
2013-2014	Past-President of the American College of Obstetricians and Gynecologists
	(ACOG).

Education

1982-1986 Medical Degree, University of California, Davis

Awards and Fellowships

2018-present Honorary Fellow, Taiwan Association of Obstetrics and Gynecology

Preconception to Infancy: Why 1000 days is not enough!

JEANNE ANN CONRY, MD, PHD

Our colleagues in pediatrics have eloquently marshalled an argument that a child's life, and hence a mother and truly a family's investment, requires a focus on the first 1000 days. But as obstetrician gynecologists, we know that this focus misses an important point: investments in health begin long before conception, long before pregnancy, and certainly long before birth. One thousand days is NOT enough. In fact, assuring that a woman's health is optimized across her life course is essential for all of us and IF a woman elects to conceive, then her health for the year before pregnancy is important. This lecture will explore the roles of OBGYN leadership and empowering women in advancing a message of *Preconception to Infancy: Investing in our Futures!*

First: Leadership. It is up to OBGYNs from around the world to help all understand that the health of women across their lifespan is a priority, for the health of these women, for families, communities, and our global health. We are the strongest messengers who can advocate for policy change to make certain that our health systems provide the necessary screening, diagnosis and treatment. This message must also carry the importance of contraception access, family planning, and abortion. Reproductive health and reproductive choices are basic elements of women's health care. OUR Leadership message is one of Empowerment for women in all facets of life, in all aspects of family planning, in all outlooks of global health.

Second: Preconception Health. Preconception health is really well woman health care—but with one key question that must be asked: "Are you interested in conceiving this year"? If a woman says no—then we optimize all elements of her health with dietary and exercise advice, mental health, screening, diagnosis and treatment, and provide the appropriate contraception so that she is making a choice specific for her needs and desires. In other words, a woman's health is optimized. But, if a woman is interested in conceiving, we focus on her health and all considerations that can impact a pregnancy and the health of her child. Her vaccinations, her diet, exercise and weight, her intake of a daily prenatal vitamin, her exposure to endocrine disrupting chemicals, screening for hypertension, diabetes, thyroid disorders. We are working with women to optimize their health, their health choices, with attention paid to any exposure that can adversely impact the fetus and children. It takes a community supported by the knowledge of physicians and the empowerment of women to demand that we support women's health and if a woman in interested in conceiving we create the environment for a healthy pregnancy.

Third: Maternal Health. Obstetrician Gynecologists are the only specialists caring for two patients simultaneously. We share a goal with our patients and their families that we will have two healthy patients at the end of nine months. These nine months are based upon shared decision-making, communication and a systematic attention to the many choices and treatments a woman, her family and the infant experience. Ban Ki Moon said: "Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women's empowerment. Solutions to one problem must be solutions for all."

Stella M. Dantas (P6)



CURRICULUM VITAE

Stella M. Dantas, M.D., FACOG

Education and Postgraduate Training

Residency Resident, John A. Burns School of Medicine, University of July 1997 – June 2001 Hawaii Obstetrics and Gynecology Residency Program

Honolulu, Hawaii

Medical Education Doctor of Medicine, Oregon Health & Science University

September 1993 – June 1997 Portland, Oregon

Undergraduate Education
August 1989 – May 1993

Bachelor of Arts, Major in Molecular Cell Biology with emphasis in Neurobiology and Minor in Music, University of

California at Berkeley Berkeley, California

Employment Experience

July 2001 – Present Obstetrician and Gynecologist

Northwest Permanente, P.C. Physicians and Surgeons

Portland, Oregon

Honors and Awards

Outstanding District Service Award, American College of Obstetricians and Gynecologists
 Improvement in State Legislative Advocacy Award, American College of Obstetricians and Gynecologists (Submission for "No Cuts to Care" Campaign Collaboration

2017 Kaiser Permanente Executive Leadership Program, Harvard Business School Graduate

Memberships

1997 – Present American College of Obstetrics and Gynecology Junior Fellow (1997-2004), Fellow (2004 to present)

2001 – Present Oregon Medical Association

Committee member on **OMA Legislative Committee** (2011 to

present)

Professional and Community Service in ACOG

2023 –	2024	Member of the CEO Search Committee
2023 –	2024	Chair of the Task Force on Advocacy Approach to Abortion Policy
2023 –	2024	President Elect
2021 –	2022	Member of the Executive Committee of the Board
2021 –	2022	Chair of the Council of District Chairs

Gynecologic Cancer Screening for the Generalist

Stella Dantas, MD, FACOG President Elect, American College of Obstetricians and Gynecologists (ACOG)

The objective of this presentation is to review gynecologic cancer screening for the obstetrician/gynecologist.

Since the widespread implementation of cervical cancer screening, the number of deaths from cervical cancer in the United States decreased substantially having declined from 2.8 to 2.3 deaths per 100 000 women from 2000 to 2015. The United States Preventive Services Task Force (USPSTF) in 2012 made updated recommendations on screening for cervical cancer. Since then, the American Society of Colposcopy and Cervical Cytology (ASCCP) released risk-based management consensus guidelines for abnormal cervical cancer screening, developed with input from ACOG and endorsed by ACOG, which is an update to the recommendations for the care of patients with abnormal cervical cancer screening results. These consensus guidelines follow a risk-based approach to determine the need for surveillance, colposcopy, or treatment and recommend consideration of a patient' s screening history, along with current test results, to guide clinical decision making.

The Centers for Disease Control and Prevention sponsored a project conducted by ACOG to develop educational materials for clinicians on the prevention and early diagnosis of gynecologic cancers. ACOG convened panel of experts to review evidence, relevant literature, best practices, and existing practice guidelines to develop evidence-based summaries to review epidemiology, risk factors, risk reduction, screening, and early diagnosis of uterine, ovarian, and vulvar and vaginal cancers.

Both the current consensus guidelines for cervical cancer screening and the evidenced based summaries regarding best practices for screening and early diagnosis of uterine, ovarian, and vulvar and vaginal malignancies will be reviewed in this presentation.