

# Andrea Bernabeu

PhD, MD.

Coordinator of the Instituto Bernabeu Reproductive Guidance and Genetics Unit in Alicante, Spain.

Researcher at the Vall d'Hebron Hospital Research Institute, Barcelona, Spain.

ESHRE Reproductive Medicine Fellow. Instituto Bernabeu, Alicante.

Gynaecology and Obstetrics Specialist, Vall d'Hebron University Hospital, Barcelona. European Board and College of Obstetrics and Gynaecology.

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## 1. Academic achievement

2016 - present, ESHRE reproductive medicine Fellow. Instituto Bernabeu, Alicante.

2015-2016 Fellowship/research at the Vall d'Hebron Hospital Prenatal Diagnosis and Reproductive Guidance Unit, Barcelona

2014 Doctoral thesis with *cum laude* first class honours, '*Estudio comparativo del desencadenamiento de la ovulación con análogos de la GnRH o HCG recombinante en ciclos de donación de ovocitos*' (Comparative study of ovulation triggering with GnRH or recombinant hCG analogues in oocyte donation cycles).

2014 Gynaecology and Obstetrics Specialist, Vall d'Hebron University Hospital, Barcelona. European Board and College of Obstetrics and Gynaecology.

2014 Obstetric Ultrasonography levels I-III, Vall d'Hebron Hospital, Barcelona. Fetal Medicine Foundation.

2010, 5-Star Student Award, Miguel Hernández University, Alicante.

2009 Doctoral dissertation. First class honours. '*Estudio Comparativo del desencadenamiento de la ovulación con análogos de la GnRH o HCG recombinante en ciclos de donación de ovocitos en protocolo de antagonistas de GnR*' (Comparative study of ovulation triggering with GnRH or recombinant hCG analogues in oocyte donation cycles with a GnRH antagonist protocol).

2009 Master of Primary Healthcare by Research, Miguel Hernández University.

2007 President of the XXV National Medical Students' Congress.

## **2. Professional experience**

### **2.1. Medical assistance**

2016 - present. Coordinator of the Instituto Bernabeu Reproductive Guidance and Genetics Unit in Alicante, Spain.

2016 - present. Researcher at the Vall d'Hebron Hospital Research Institute, Barcelona, Spain.

2015 - present. Gynaecologist at Instituto Bernabeu, Alicante.

2010- 2014. Gynaecology and Obstetrics Specialist, Vall d'Hebron University Hospital, Barcelona. European Board and College of Obstetrics and Gynaecology.

### **2.2. Teaching experience**

2013- present. Teacher on the Reproductive Medicine Master's Course at the University of Alicante.

2016-2017, Member at two doctoral thesis Jury at the Miguel Hernández University in Elche, Alicante.

2017. Lecturer on the Male Infertility Master's Course at the University of Castilla La Mancha.

2015. Teacher on the SESCOAM (Servicio de Salud Castilla La Mancha) training course on the global challenge of sterility ('La esterilidad un reto de todos'), Castilla La Mancha healthcare service.

2014. 'Guidance in Reproduction' at the 14<sup>th</sup> Women, Biology and Health conference, University of Alicante.

2011. 'The challenges of reproductive medicine in the 21<sup>st</sup> century' presentation, University of Alicante.

### 3. Research

#### 3.1. Research experience

2017- present. Lead researcher. Vaginal Microbiome Influence on the Results of Assisted Reproduction Techniques ( RIFMicrobiome). ClinicalTrials.gov ID: NCT03153787

2017- present. Collaborator SOFIA Study: Security of the Ovaleap (Foltripoina alfa) in sterile women during a reproductive techniques. Multinational, comparative, prospective, non-intervention study, Phase IV.

2016- present. Lead researcher in a study of alternative screening for foetal aneuploidy with the inclusion of NIPT (Non Invasive Prenatal Test). Vall d'Hebron Hospital, Prenatal Diagnosis Unit - Harmony, Ariosa, CA, USA.

2016- present. Lead co-researcher on a study of the vaginal microbiome and the risk of premature birth. Division of Maternal-Fetal Medicine Vall d'hebron Hospital, High-Risk Obstetrics Unit in collaboration with Maternal-Fetal Medicine, Houston, USA.

2016- present. Collaborating researcher in a study of vaginal microbiota in pregnant women with a risk of premature birth (users of a vaginal pessary or cerclage) versus pregnant women at a low risk. Study awarded a FIS (health research training) grant, Ministry of Health and Education, Instituto Carlos III, Madrid.

2014. Collaborator on Assisted Reproduction Protocols at the Vall d'Hebron Hospital, Barcelona.

2014. Collaboration on the doctoral thesis entitled '*Administración de Oxígeno Materno ante patrones cardiotocográficos sugerentes de pérdida de bienestar fetas*' (Administration of oxygen to the mother in cases of cardiopographic patterns that would suggest reduced fetal wellbeing) M Calveiro, Complutense University of Madrid, Spain.

2013. Collaborating researcher of the National Register of Patients with Abundant Menstrual Bleeding with no organic cause (SANA study). Coordinating hospital: *Hospital Clinic i Provincial*, Barcelona.

#### 3.2 Publications

##### Journals

'Physical examination-indicated cerclage in singleton and twin pregnancies: maternal-fetal outcomes.' Bernabeu A, Goya M, Martra M, Suy A, Pratcorona L, Merced C, Llorba E, Casellas M, Carreras E, Cabero L. *J Matern Fetal Neonatal Med.* 2016;29(13):2109-13. doi: 10.3109/14767058.2015.1076786. Epub 2015 Sept 15. PMID: 26371753

'Surgery improves survival in elderly with breast cancer. A study of 465 patients in a single institution.' Cortadellas T, Córdoba O, Gascón A, Haladjian C, Bernabeu A, Alcalde A, Esgueva A, Rodriguez-Revuelto R2, Espinosa-Bravo M2, Díaz-Botero S, Xercavins J, Rubio IT, Gil-Moreno A. *Eur J Surg Oncol.* 2015 Feb 10. pii: S0748-7983(15)00060-8. doi: 10.1016/j.ejso.2015.01.027

'Characterization of a balanced complex chromosomal rearrangement carrier ascertained through a fetus with dup15q26.3 and del5p15.33: case report.' Lledo B, Ortiz JA, Morales R, Manchon I, Galan F, Bernabeu A, Bernabeu R. *Hum Fertil (Camb).* 2013 Sep;16(3):215-7.

'Premature rupture of membranes before 34 weeks managed expectantly: maternal and perinatal outcomes in singletons.' Goya M, Bernabeu A, García N, Plata J, Gonzalez F, Merced C, Llorba E, Suy A, Casellas M, Carreras E, Cabero L. *J Matern Fetal Neonatal Med.* 2013 Feb;26(3):290-3.

'*Revista Folia Clínica en Obstetricia y Ginecología*' September 2011, Spain;

Chapter 3: '*Diagnóstico de la pareja estéril*' (Sterile partner diagnosis). M Lopez; A Bernabeu J Herrero

Chapter 7: '*Suplementos de progesterona en los tratamientos de fertilidad*' (Progesterone supplements during fertility treatment) A Bernabeu, M Lopez, J Herrero.

## Books/chapters

'*Farmacoterapia en la Medicina de la Reproducción*' I Edición, Ed. Panamericana, SEF (Spanish Fertility Society). 2014. Chapter entitled '*Hormona Foliculoestimulante*' (Follicle-stimulating hormone), J. Herrero, A. Bernabeu, A. Voskuillen.

Atlas of Assisted Reproduction, Merck-Serono, collaborator on the i-Pad application, September 2014.

'*Ginecología. Casos clínicos*' (Gynaecology. Case reports). I Edition, Manual Moderno Editorial. 2014. Mexico. Chapter entitled '*Miomatosis uterina*' (Uterine myoma). A. Bernabeu, J. Herrero.

Collaborator on the Atlas of Assisted Reproduction, Merck-Serono. Coordinated by Dr J. Herrero. 2012.

'*Síndrome de Ovario Poliquístico*' (Polycystic Ovary Syndrome) II Edición, Ed. Panamericana 2012, SEF. Chapter 8: '*Insubilinosensibilizantes e inhibidores de la aromatas*' (Insulin sensitisers and aromatase inhibitors). J. Herrero, A. Bernabeu, C del Viso.

'*Estilo de vida y fertilidad*' (Lifestyle and fertility) Ed. Panamericana, 2011. SEF (Spanish Fertility Society). Chapter 5 '*Bajo peso e infertilidad*' (Low body weight and infertility). J Herrero, M.J. López, A. Bernabeu.

'*Manual de Reproducción para Residentes*' (Reproduction Manual for Resident Doctors) Merck-Serono. Pending publication.

## Lectures/Presentations

Oral presentation: Variabilidad de la tasa de aneuploidías embrionarias entre ciclos consecutivos de CCS (Variability in the embryo aneuploidy rate between consecutive CCS cycles). JA. Ortiz, B. Lledó, R. Morales, A. Turienzo, J. Ten, A. Bernabeu, J. Llácer, R. Bernabeu. XXXI Annual Congress Spanish Fertility Society, May 2016. Malaga, Spain.

Oral presentation: ¿Responden los embriones biopsiados de distinta forma a los procesos de vitrificación y desvitrificación?. M.C. Tió, J. Ten, J. Guerrero, A. Rodríguez-Arnedo, M.D. Pérez-Izquierdo, B. Moliner, A. Bernabeu, J. Llácer, R. Bernabeu. VIII ASEBIR (Association to Study the Reproductive Biology) Congress, San Sebastian, Spain. November, 2016.

Oral presentation: 'Number of trophoctoderm cells removed for biopsy is correlated with first trimester miscarriage.' J. Ten, A. Rodríguez-Arnedo, M.C. Díaz, H. Blanca, J. Guerrero, B. Lledó, B. Moliner, F. Sellers, A. Bernabeu, J. Llácer, R. Bernabeu. ESHRE; Lisbon, 14<sup>th</sup> to 17<sup>th</sup> June 2015.

Oral presentation: '*Estrategia alternativa de cribado de primer trimestre*' (Alternative strategy for first trimester screening). Awarded a prize for the best oral presentation. Bernabeu A, Sanchez MA, Aviles M, Calero I, Higuera T, Aulesa C, Ramis J, Carreras E. XVI edition of the Spanish Association of Prenatal Diagnosis congress, 20<sup>th</sup> and 21<sup>st</sup> November 2014, Valencia.

Oral presentation: 'Laparoscopic hysterectomies for benign indication: an analysis of 380 cases between 2005 and 2012.' Haladjian, MC, Mañalich L, Suárez E, De La Torre J, Gorraiz V, Bernabeu A, Capote S, Hurtado I, Poza JL, Gil A. ESGE Congress, Berlin, October 2013.

Selected lecture: '*Cost-efectivitat en el tractament de la osteoporosi.*' 7<sup>é</sup> Congrés Català de Ginecologia i Obstetria. Societat Catalana de Ginecologia i Obstetria. (Cost effectiveness in the treatment of

osteoporosis. 7<sup>th</sup> Catalan Gynaecology and Obstetrics Congress. Catalan Society of Gynaecology and Obstetrics). Barcelona, 21<sup>st</sup> to 23<sup>rd</sup> November 2012.

Oral presentation: '*Conducta expectante en la Rotura Prematura de Membranas antes de las 34 semanas: resultados maternos y perinatales en gestaciones únics*' (Expectant management of cases of premature diaphragm rupture before 34 weeks: maternal and perinatal results in singleton pregnancies), XXII edition of the SEGO (Spanish Society of Gynaecology and Obstetrics) Perinatal Medicine section National Congress, Coruña, 14<sup>th</sup> to 16<sup>th</sup> November 2012.

Oral presentation promoted to speech category: '*Síndrome Metabólico y DMO en la mujer menopáusica*' (Metabolic syndrome and BMD in menopausal women). XII edition of the national SEGO (Spanish Society of Gynaecology and Obstetrics) AEEM (Spanish Association for the Study of the Menopause) congress, 5<sup>th</sup> to 8<sup>th</sup> June 2012, Alicante.

## Posters

Impact of airplane travel after an embryo transfer procedure in the reproductive outcome of oocyte donation cycles. JC. Castillo, J. Ortiz, L. Martí, R. Nataloni, B. Moliner, A. Bernabeu, J. Llácer, R. Bernabeu. 33 Annual Meeting of ESHRE, Geneva, Switzerland.

Estudio comparativo de uso de semen de banco versus paaf testicular en vasetomizados en la donacion de ovocitos. B. Moliner, F. Sellers, J. Llácer, A. Castillo, A. Bernabeu, P. Baviera, R. Bernabeu. XXXI Annual Congress Spanish Fertility Society, May 2016. Malaga, Spain.

Comprehensive Chromosome Screening (CCS) in embryos from egg donation cycles reveals that chromosomal polymorphic variants increase the aneuploidy rate. R Morales, B. Lledó, JA. Ortiz, A. Bernabeu, J. Llácer, R. Bernabeu. British Fertility Society. Annual Meeting 2016. Newcastle, UK. January 2016

The type of chromosomal alteration that is detected in aneuploid embryos is related to maternal age. JA. Ortiz, B. Lledó, R. Morales, A. Bernabeu, J. Llácer and R. Bernabeu. British Fertility Society. Annual Meeting 2016. Newcastle, UK. January 2016

New classification of adenomyosis. B. Moliner, J. Llácer, F. Sellers, A. Bernabeu, P. Baviera, R. Bernabeu. British Fertility Society. Annual Meeting 2016. Newcastle, UK. January 2016

Transvaginal ultrasonography accelerated video recording is a reliable method for the assessment of uterine peristalsis before embryo transfer. A. Castillo, B. Moliner, F. Sellers, J. Llácer, J.C. Castillo, A. Bernabeu, R. Bernabeu. 32<sup>nd</sup> Annual Meeting of ESHRE, Helsinki, Finland.

Intercycle variation in embryo aneuploidy rates. J.A. Ortiz, B. Lledó, R. Morales, A. Turienzo, J. Ten, A. Bernabeu, J. Llácer, R. Bernabeu. 32<sup>nd</sup> Annual Meeting of ESHRE, Helsinki, Finland.

'Embryo vitrification on day 4 increases the survival rate in oocyte recipients.' J llacer, I Ochando, J.Ten, J.Guerrero, A. Rodriguez-Arnedo, A. Bernabeu, R.Bernabeu. Instituto Bernabeu. Fertility Congress, 7<sup>th</sup> to 9<sup>th</sup> January, Birmingham, United Kingdom.

'Does donor body mass index affect the final outcome in egg donation?' Bernabeu R, Guerrero J, Ten J, Bernabeu A, Gimenez J, Llacer J. Instituto Bernabeu. Fertility Congress, 7<sup>th</sup> to 9<sup>th</sup> January, Birmingham, United Kingdom.

'*Estudio comparativo del desencadenamiento de la ovulación con análogos de la GnRH o HCG recombinante en ciclos de donación de ovocitos*' (Comparative study of ovulation triggering with GnRH or HCG recombinant analogues in egg donation cycles). Bernabeu A, Orozco D, Ten J, Jiménez J, Llácer J, Rodríguez A, Bernabeu R. XXX edition of the SEF (Spanish Fertility Society) congress, May 2014, Barcelona.

'*Estudio descriptivo y análisis comparativo de las histerectomías laparotómicas*' (Descriptive study and comparative analysis of laparoscopic hysterectomies). Bernabeu A, Haladjan C, Hurtado I, Capote S, Gorraiz V, De la Torre J, Gil, A. Vall D'Hebron University Hospital, XXXI edition of the SEGO (Spanish Society of Gynaecology and Obstetrics) national congress, June 2013, Tenerife.

'*Indicaciones y complicaciones de la Histerectomía vaginal en nuestro Servicio*' (Indications and complications of vaginal hysterectomies in our department). V Gorraiz; S Capote; C Haladjian; I Hurtado; A

Bernabeu; JL Poza. Vall D'Hebron University Hospital, XXXI edition of the SEGO (Spanish Society of Gynaecology and Obstetrics) national congress, June 2013, Tenerife.

*'Estudio Sociodemográfico de las Mujeres Menopáusicas'* (Socio-demographic Study of Menopausal Women). XII National Congress of the SEGO (Spanish Society of Gynaecology and Obstetrics) AEEM (Spanish Association for the Study of the Menopause), Alicante 5<sup>th</sup> to 8<sup>th</sup> June 2012.

*'Pruebas Complementarias en la Unidad de Menopausis'* (Complementary Tests in the Menopause Unit). XII National Congress of the SEGO (Spanish Society of Gynaecology and Obstetrics) AEEM (Spanish Association for the Study of the Menopause), Alicante 5<sup>th</sup> to 8<sup>th</sup> June 2012.

*'Estudio del Síndrome Metabólico en la Mujer Menopáusica'* (Study of the Metabolic Syndrome in Menopausal Women). XII National Congress of the SEGO (Spanish Society of Gynaecology and Obstetrics) AEEM (Spanish Association for the Study of the Menopause), Alicante 5<sup>th</sup> to 8<sup>th</sup> June 2012.

Poster promoted to excellent poster level at the VI edition of the SEGO (Spanish Society of Gynaecology and Obstetrics) Pelvic Floor National Congress, Madrid, April 2012. *'Disfunciones del Suelo Pélvico asociadas al Fórceps Obstétrico'* (Pelvic floor dysfunctions linked to obstetric forceps).

*'Maneig expectant en el maneig de la ruptura prematura de membranes abans de les 34 setmanes: resultats materns i perinatals.'* (Expectant management of cases of premature diaphragm rupture before 34 weeks: maternal and perinatal results). García N., Bernabeu A., Plata J., Gonzalez F., Merced C., Goya M. *7é Congrés Català de Ginecologia i Obstetrícia. Societat Catalana de Ginecologia i Obstetrícia* (7<sup>th</sup> Catalan Gynaecology and Obstetrics Congress. Catalan Society of Gynaecology and Obstetrics). Barcelona, 21<sup>st</sup> to 23<sup>rd</sup> November 2012.

*'A propòsito de un caso: Rotura Prematura de Membranas en el primer trimestre'* (A case study: premature rupture of membranes in the first trimester). XXII edition of the SEGO (Spanish Obstetrics and Gynaecology Society) national congress on perinatal medicine, Coruña 14<sup>th</sup> to 16<sup>th</sup> November 2012.

31<sup>st</sup> edition of the SEGO (Spanish Obstetrics and Gynaecology Society) National Congress, May 2011, Seville: *'Correlación clínico-quirúrgica en pacientes afectas de endometriosis ovárica y peritoneal'* (Clinical and surgical correlation in patients with ovarian and peritoneal endometriosis). A Bernabeu, M Alcoz, E Suárez, L Mañalich, J Xercavins.

*'Correlación entre la resonancia magnética nuclear y los hallazgos intraoperatorios en la endometriosis profunda'* (Correlation between nuclear magnetic resonance and intraoperative findings in deep endometriosis). M. Alcoz, A. Bernabeu, E. Suárez, L. Mañalich, J Xercavins.

General Gynaecology International Symposium, 2010. Dexeus Clinic, Barcelona:

*'Deep endometriosis: diagnostic role of MRI prior to laparoscopy and correlation with histological analysis'* Alcoz M, Esgueva A, Bernabeu A, Suárez E, Mañalich L, Xercavins J.

*'Manejo quirúrgico conservado de los abscesos tubáricos y tuboováricos'* (Conservative surgical handling of tubal and tubo-ovarian abscesses). Rabasa Antonijuan, Mañalich L, Lopera AF, Bernabeu A, Capote S, Xercavins.



## 4. Courses

2017. 33 Annual Meeting of ESHRE, Geneva, Switzerland.

2017. V Reproductive Medicine Seminar, Jávea, Alicante.

Course entitled '*Screening de aneuploidias. Técnicas invasivas. Morfología fetal*' (Aneuploidy screening. Invasive Techniques. Fetal Morphology), Fetal Medicine, Vall d'Hebron Hospital, Barcelona. 28<sup>th</sup> and 29<sup>th</sup> May 2015.

Course entitled '*Proteòmica i Metabolòmica*' Unitat d'Alta Tecnologia (UAT), Vall d'Hebron Research Institute (VHIR), 9<sup>th</sup> and 10<sup>th</sup> March 2015.

Training seminar entitled '*Cómo elaborar un protocolo de investigación en ciencias de la salud*' (Elaborating a research protocol in health sciences), Institut de Recerca del vall d'Hebron, VHIR, (Vall d'Hebron Research Institute) 12<sup>th</sup> to 13<sup>th</sup> January 2015.

Fertility Congress, 7<sup>th</sup> to 9<sup>th</sup> January, Birmingham, United Kingdom.

Prenatal Diagnosis National Congress, Valencia. 20<sup>th</sup> to 21<sup>st</sup> November 2014. Valencia.

1<sup>st</sup> 'Meeting the Experts' conference. Instituto Bernabeu, Alicante. 31<sup>st</sup> May and 1<sup>st</sup> June 2013. Course entitled '*Comunicación científica oral en el ámbito internacional*' (Oral scientific presentation in an international environment) Madrid, 16<sup>th</sup> May 2013.

Course entitled '*Screening de aneuploidias. Técnicas invasivas. Morfología fetal*' (Aneuploidy screening. Invasive Techniques. Foetal morphology) 11<sup>th</sup> and 12<sup>th</sup> April 2013. Vall d'Hebron Hospital, Barcelona.

Continuous training course on obstetrics and gynaecology: gynaecological endocrinology, human reproduction and benign gynaecological pathology. Hospital Clinic i Provincial de Barcelona, Cardona (Barcelona), 3<sup>rd</sup> to 8<sup>th</sup> March 2013.

1<sup>st</sup> conference on the risk of premature birth, Instituto Bernabeu, 24<sup>th</sup> November 2012, Alicante.

*7é Congrés Català de Ginecologia i Obstetrícia* (7<sup>th</sup> Catalan Congress of Gynaecology and Obstetrics). Barcelona, 21<sup>st</sup> to 23<sup>rd</sup> November 2012.

12<sup>th</sup> SEGO (Spanish Obstetrics and Gynaecology Society) national congress on perinatal medicine, Coruña 14<sup>th</sup> to 16<sup>th</sup> November 2012.

Course on the treatment of pelvic floor defects, Igualada Hospital, International School of Gynaecological Endoscopy. 19<sup>th</sup> to 21<sup>st</sup> September 2012.

VI edition of the SEGO (Spanish Society of Gynaecology and Obstetrics) national congress on the pelvic floor, Madrid, 11<sup>th</sup> to 13<sup>th</sup> April 2012.

Workshop on surgical techniques in the treatment of perineal tears, Vall d'Hebron Hospital. 30<sup>th</sup> March 2012.

9<sup>th</sup> seminar on controversies in gynaecology, Hospital Clinic and Vall d'Hebron Hospital. 19<sup>th</sup> April 2012.

Course on endocrinology and reproduction. Sant Pau Hospital, Barcelona. 4<sup>th</sup> to 6<sup>th</sup> May 2011 I seminar on the treatment of pelvic floor dysfunction in the field of gynaecology. Vall d'Hebron Hospital, 14<sup>th</sup> December 2011.

1<sup>st</sup> seminar on progress in assisted reproduction techniques, 11<sup>th</sup> November 2011, Instituto Bernabeu, Alicante. 3<sup>rd</sup> basic course on human reproduction, Eugin Clinic, 28<sup>th</sup> October 2011.

Theoretical and practical course by Medfetal on 11-13+6 weeks ultrasound scans and morphological ultrasound scans. Vall d'Hebron Hospital, 20<sup>th</sup> to 22<sup>nd</sup> October 2011.

16<sup>th</sup> Medfetal course on obstetric and gynaecological ultrasound scans. Vall d'Hebron Hospital, Barcelona. 15<sup>th</sup> to 18<sup>th</sup> February 2011.

'*Gemelaridad en el S. XXI*' (Multiple births in the XXI century) IVI, Barcelona. 5<sup>th</sup> October 2010.

Gynaecology, obstetrics and reproduction symposium: '*Lo que debes saber y puedes hacer*' (What you need to know and what you can do). 24 hours. Santiago Dexeus Gynaecology Clinic, Barcelona. 6<sup>th</sup> to 8<sup>th</sup> October 2010.

3<sup>rd</sup> SEGO course on the basics of obstetrics and gynaecology. Teruel, 23<sup>rd</sup> to 25<sup>th</sup> September 2010.