

Forskningsaktivitet Fertilitetsklinikken Skive 2013

Forskningsansvarlig

Professor Peter Humaidan
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Ansatte med dr.med.grad

Professor Peter Humaidan
Aarhus Universitet
78445773, peter.humaidan@midt.rm.dk

Ansatte med ph.d.-grad

(Navn, titel samt universitet)

Ansatte med anden videnskabelig grad

Laboratorieleder Betina B. Povlsen Msc Embryology, betina.bp@midt.rm.dk

Study nurse Alice T. Mikkelsen MSc Klinisk sygepleje, alice.toft.mikkelsen@midt.rm.dk

Ph.d.-studerende

Lise Thomsen: The impact of mid-luteal progesterone on the reproductive outcome of in vitro fertilization therapy. Hovedvejleder Prof. Peter Humaidan

Louise Svenstrup: Assisteret reproduktion og den tidlige luteal fase – ovulationsinduktionens påvirkning af den endokrine profil. Hovedvejleder Prof. Peter Humaidan

Mia Steengaard Olesen: Terapeutisk endometrie abradering. Medvejleder Prof. Peter humaidan

Forskningsårsstuderende

Thor Haahr projekt: Validation of Self-obtained Vaginal Smears to Assess the Relationship between Bacterial Vaginosis, the Vaginal Microbiome, Vitamin D and adverse outcomes in Obstetrics and Gynaecology.

Ph.d.-afhandlinger/disputatser

(Afsluttet I 2013. Navn, title samt universitet)

Præsentation af afdelingens vigtigste forskningsaktivitet

2013 har på Fertilitetsklinikken været et år med stor aktivitet på Forskningsområdet. Peter Humaidan blev ansat som professor 1/6 og holdt tiltrædelsesforelæsning sept.13.

Vi har arbejdet med igangværende projekter, men også været initiativtagere og medvirkende ved mange nye projekter.

Alle har bidraget flot til de mange projekter og ydet en stor ekstra indsats.

I marts stod klinikken for at arrangere årsmøde i Dansk Fertilitetselskab og klinikken stod selv for at arrangere tiltrædelsesforelæsningen i september.

Klinikken har været repræsenteret med indlæg ved faglige arrangementer i både ind og udland. Engagementet har også vist sig ved stor deltagelse i faglige kongresser og kurser både nationalt og internationalt.

Der har været et stort fokus på planlægning og opstart af nye forskningsaktiviteter med henblik på, at vi arbejder på at blive en Universitetsklinik. Vi er klar til opstart af et Ph.d. samt et forskningsårsprojekt i 2014 og har flere lignende projekter i støbeskeen.

Liste over igangværende forskningsprojekter opdelt i:

Forsker-initierede projekter

The effect of long lasting FSH on ovarian response of poor responder patients.
Regionshospitalet Skive, Fertilitetsklinikken, Skive Sundhedshus

Vurdering af receptorpolymorfismers effekt på ovarierespons hos normogonadotrope kvinder i lang IVF/ICSI behandling med rFSH.

Regionshospitalet Skive, Fertilitetsklinikken, Skive Sundhedshus
Fertilitetsklinikken, Odense Universitetshospital
Università degli Studi de Napoli Federico II
Centre for Reproduction and Medina General Hospital of Modena
Centro de Biologia Riproduzione, Palermo
Forskerinitieret. Kontaktperson: Helle Olesen Elbæk

Lutealfasen efter GnRHa trigger – et proof of concept studie
Et prospektivt, randomiseret, kontrolleret, ikke blindet pilot studie
Regionshospitalet Skive, Fertilitetsklinikken Skive Sundhedshus.
Fertilitetsklinikken, Odense Universitetshospital
Rigshospitalet. Klinik for Vækst og Reproduktion
Copenhagen Fertility Center
Forskerinitieret. Kontaktperson: Helle Olesen Elbæk

Substitueret fryseprotokol med GnRH-agonist, der et kontrolleret, randomiseret multicenterstudie med flere danske klinikker involveret.
Forskerinitieret. Kontaktperson: Birgit Alsbjerg.

Medicinalindustri-initierede projekter

Corifollitropin Evaluation in Practice, [CREATE].

En multicenter prospektiv observationsundersøgelse med deltagelse af flere danske samt en del udenlandske fertilitetsklinikker.

Medicinalindustriinitieret. Kontaktperson: Helle Olesen Elbæk

Videnskabelige og populærvidenskabelige publikationer offentliggjorte i 2013

- 1) Impact of GnRH agonist triggering and intensive luteal steroid support on live-birth rates and ovarian hyperstimulation syndrome: a retrospective cohort study. Iliodromiti S, Lan VT, Tuong HM, Tuan PH, **Humaidan P**, Nelson SM. J Ovarian Res. 2013 Dec 26;6(1):93. doi: 10.1186/1757-2215-6-93.

- 2) The circadian variation in Anti-Müllerian hormone in patients with polycystic ovary syndrome differs significantly from normally ovulating women.
Bungum L, Franssohn F, Bungum M, **Humaidan P**, Giwercman A.
PLoS One. 2013 Sep 4;8(9):e68223. doi: 10.1371/journal.pone.0068223.
- 3) Follicular HCG endometrium priming for IVF patients experiencing resisting thin endometrium. A proof of concept study.
Papanikolaou EG, Kyrou D, Zervakakou G, Paggou E, **Humaidan P**.
J Assist Reprod Genet. 2013 Oct;30(10):1341-5. doi: 10.1007/s10815-013-0076-0. Epub 2013 Aug 16.
- 4) Consistent high clinical pregnancy rates and low ovarian hyperstimulation syndrome rates in high-risk patients after GnRH agonist triggering and modified luteal support: a retrospective multicentre study.
Iliodromiti S, Blockeel C, Tremellen KP, Fleming R, Tournaye H, **Humaidan P**, Nelson SM.
Hum Reprod. 2013 Sep;28(9):2529-36. doi: 10.1093/humrep/det304. Epub 2013 Jul 19.
- 5) Comparison of gene expression profiles in granulosa and cumulus cells after ovulation induction with either human chorionic gonadotropin or a gonadotropin-releasing hormone agonist trigger.
Borgbo T, **Povlsen BB**, Andersen CY, Borup R, **Humaidan P**, Grøndahl ML.
Fertil Steril. 2013 Oct;100(4):994-1001. doi: 10.1016/j.fertnstert.2013.05.038. Epub 2013 Jul 12.
- 6) Motivational interviewing: a part of the weight loss program for overweight and obese women prior to fertility treatment.
Karlsen K, **Humaidan P**, **Sørensen LH**, **Alsbjerg B**, Ravn P.
Gynecol Endocrinol. 2013 Sep;29(9):839-42. doi: 10.3109/09513590.2013.808326. Epub 2013 Jul 15.
- 7) GnRHa trigger and modified luteal support with one bolus of hCG should be used with caution in extreme responder patients.
Humaidan P, Thomsen LH, **Alsbjerg B**.
Hum Reprod. 2013 Sep;28(9):2593-4. doi: 10.1093/humrep/det287. Epub 2013 Jul 9. No abstract available.
- 8) Early luteal phase endocrine profile is affected by the mode of triggering final oocyte maturation and the luteal phase support used in recombinant follicle-stimulating hormone-gonadotropin-releasing hormone antagonist in vitro fertilization cycles.
Fatemi HM, Polyzos NP, van Vaerenbergh I, Bourgain C, Blockeel C, **Alsbjerg B**, Papanikolaou EG, **Humaidan P**.
Fertil Steril. 2013 Sep;100(3):742-7. doi: 10.1016/j.fertnstert.2013.05.028. Epub 2013 Jun 24.
- 9) GnRHa trigger and individualized luteal phase hCG support according to ovarian response to stimulation: two prospective randomized controlled multi-centre studies in IVF patients.
Humaidan P, Polyzos NP, **Alsbjerg B**, Erb K, Mikkelsen AL, **Elbaek HO**, Papanikolaou EG, Andersen CY.
Hum Reprod. 2013 Sep;28(9):2511-21. doi: 10.1093/humrep/det249. Epub 2013 Jun 9.
- 10) A common polymorphic allele of the LH beta-subunit gene is associated with higher exogenous FSH consumption during controlled ovarian stimulation for assisted reproductive technology.

Alviggi C, Pettersson K, Longobardi S, Andersen CY, Conforti A, De Rosa P, Clarizia R, Strina I, Mollo A, De Placido G, **Humaidan P**.
 Reprod Biol Endocrinol. 2013 Jun 1;11(1):51. [Epub ahead of print]

- 11) Does the time interval between antimüllerian hormone serum sampling and initiation of ovarian stimulation affect its predictive ability in in vitro fertilization-intracytoplasmic sperm injection cycles with a gonadotropin-releasing hormone antagonist? A retrospective single-center study.
 Polyzos NP, Nelson SM, Stoop D, Nwoye M, **Humaidan P**, Anckaert E, Devroey P, Tournaye H.
 Fertil Steril. 2013 Aug;100(2):438-44. doi: 10.1016/j.fertnstert.2013.03.031. Epub 2013 Apr 16.
- 12) The type of GnRH analogue used during controlled ovarian stimulation influences early embryo developmental kinetics: a time-lapse study.
 Muñoz M, Cruz M, **Humaidan P**, Garrido N, Pérez-Cano I, Meseguer M.
 Eur J Obstet Gynecol Reprod Biol. 2013 Jun;168(2):167-72. doi: 10.1016/j.ejogrb.2012.12.038. Epub 2013 Jan 22.
- 13) GnRH agonist triggering: recent developments.
 Kol S, **Humaidan P**.
 Reprod Biomed Online. 2013 Mar;26(3):226-30. doi: 10.1016/j.rbmo.2012.11.002. Epub 2012 Nov 21. Review.
- 14) Increasing vaginal progesterone gel supplementation after frozen-thawed embryo transfer significantly increases the delivery rate.
Alsbjerg B, Polyzos NP, **Elbaek HO**, **Povlsen BB**, Andersen CY, **Humaidan P**.
 Reprod Biomed Online. 2013 Feb;26(2):133-7. doi: 10.1016/j.rbmo.2012.10.012. Epub 2012 Oct 23.
- 15) Psychological aspects of male fertility treatment.
Mikkelsen AT, Madsen SA, **Humaidan P**.
 J Adv Nurs. 2013 Sep;69(9):1977-86. doi: 10.1111/jan.12058. Epub 2012 Dec 10.
- 16) Corifollitropin alfa followed by rFSH in a GnRH antagonist protocol for poor ovarian responder patients: an observational pilot study.
 Polyzos NP, Devos M, **Humaidan P**, Stoop D, Ortega-Hrepich C, Devroey P, Tournaye H.
 Fertil Steril. 2013 Feb;99(2):422-6. doi: 10.1016/j.fertnstert.2012.09.043. Epub 2012 Oct
- 17) A randomized clinical trial to evaluate the effect of granulocyte-macrophage colony-stimulating factor (GM-CSF) in embryo culture medium for in vitro fertilization.
Ziebe S, Loft A, **Povlsen BB**, Erb K, Agerholm I, Aasted M, Gabrielsen A, Hnida C, Zobel DP, Munding B, Bendz SH, Robertson SA.
 Fertil Steril. **2013** May;99(6):1600-9. doi: 10.1016/j.fertnstert.2012.12.043. Epub **2013** Feb 4.

Undervisning.

Overlæge Birgit Alsbjerg er blevet ansat som klinisk lektor ved Aarhus Universitet

Sygeplejerske Sanne Byrum har bestået den sundhedsfaglige diplomuddannelse

Bioanalytiker Pia Elimann Nielsen er blevet ESHRE-certificeret klinisk embryolog.

Videnskabelige kongresser. Angiv om du er invited/key note speaker, chairman eller har fået accepteret en oral præsentation eller poster.

Peter Humaidan, Invited speaker:

Reproductive physiology

IC-meeting

Dubai, UAE, 2013, December 14-15th

LH add-back in ART

IC-meeting

Dubai, UAE, 2013, December 14-15th

LH in focus

IMPART

Dubai, UAE, 2013, December 13th

GnRH agonist triggering – understanding an enigma

COGI – BCGI

5th Asia Pacific Congress

Shanghai, China, 2013, November 22nd

Individualized controlled ovarian stimulation: Do You and your patients truly need it?

Meet the expert –IVF specialists

Singapore, 2013, November 20th

Individualized controlled ovarian stimulation: Do You and your patients truly need it?

Meet the expert –NUH Hospital

Singapore, 2013, November 20th

Individualized controlled ovarian stimulation: Do You and your patients truly need it?

Meet the expert –SGH Hospital

Singapore, 2013, November 19th

Individualized controlled ovarian stimulation: Do You and your patients truly need it?

Meet the expert – KKH Hospital

Singapore, 2013, November 19th

Individualized controlled ovarian stimulation (iCOS)

Meet the expert

Penang, Malaysia, 2013, November 17th

Individualized controlled ovarian stimulation (iCOS)

Meet the expert

Kuala Lumpur, Malaysia, 2013, November 16th

GnRH agonist versus GnRH antagonist protocols in IVF/ICSI

Serono Symposia International Foundation
Madrid, Spain, 2013, November 15th

LH and ovarian stimulation: different approaches
 Serono Symposia International Foundation
Madrid, Spain, 2013, November 15th

Individualized controlled ovarian stimulation (iCOS).
 The Kazakhstan Fertility Society Congress
Almaty, Kazakhstan 2013, November 7th- 9th

GnRHa trigger – state of the ART
 Royan Institute 14th International Congress on Reproductive Medicine
Tehran, Iran, 2013, September 4th
 PCOS and COS

New perspectives in controlled ovarian stimulation and embryology
 Satellite Symposium
 Royan Institute
Tehran, Iran, 2013, September 3rd

Managing the poor responder patient
 New perspectives in controlled ovarian stimulation and embryology
 Satellite Symposium
 Royan Institute
Tehran, Iran, 2013, September 3rd

Optimal usage of the GnRH antagonist protocol
 New perspectives in controlled ovarian stimulation and embryology
 Satellite Symposium 14th International Congress on Reproductive Medicine
 Royan Institute
Tehran, Iran, 2013, September 3rd

The role of supplementary LH vs hCG - LH - Friend or Foe
 Fertility Specialist Meeting
 Sponsored by Merck Serono
Amman, Jordan, 2013, September 1st

Managing the poor responder patient
 Fertility Specialist Meeting
 Sponsored by Merck Serono
Hyderabad, India, 2013, August 13th

Optimal usage of the GnRH antagonist protocol
 Fertility Specialist Meeting
 Sponsored by Merck Serono
Hyderabad, India, 2013, August 13th

Managing the poor responder patient
 Fertility Specialist Meeting
 Sponsored by Merck Serono
New Delhi, India, 2013, August 12th

Optimal usage of the GnRH antagonist protocol
 Fertility Specialist Meeting
 Sponsored by Merck Serono
New Delhi, India, 2013, August 12th

The role of supplementary LH vs hCG
 iCOS to improve efficacy of ART treatment
 Fertility Specialist Meeting
 Sponsored by Merck Serono
Mumbai, India, 2013, August 11th

LH - Friend or Foe
 Fertility focus group meeting
 Sponsored by Merck Serono
Mumbai, India, 2013, August 10th

Optimal Usage of the Antagonist Protocol in IVF.
 Clinical Observation Program for Fertility
Brussels University (VUB), Belgium, 2013, June 27th

Risk: How to predict and prevent OHSS.
 Clinical Observation Program for Fertility
Brussels University (VUB), Belgium, 2013, June 27th

The Luteal Phase: Beyond the Protocols.
 New lessons learned and old lessons revisited
 Danish fertility specialist meeting
Aarhus, Denmark, 2013, June 19th

Peter Humaidan, Chairman:

IMPART
 Individualization of ART protocols and AMH promises
Dubai, UAE, 2013, December 13th

IMPART
 Number of oocytes and progesterone levels in IVF success: do they matter?
Dubai, UAE, 2013, December 13th

IC-meeting
 Estradiol and progesterone add-back in ART
Dubai, UAE, 2013, December 14-15th

IC-meeting

The state of ART device for improving patient adherence and clinical outcome for patient centered management.

Dubai, UAE, 2013, December 14-15th

How do we deal with poor responder patients?

COGI – BCGI

5th Asia Pacific Congress

Shanghai, China, 2013, November 22nd

Birgit Alsbjerg – oral presentation: Graviditetstab efter frysebehandling – sammenligning af 3 protokoller. Dansk Fertilitetsselskabs årsmøde

Betina Boel Povlsen – oral presentation: Sperm-Hyaluron Binding Assay (HBA) anvendt I praksis. Dansk Fertilitetsselskabs årsmøde

Udvalgsarbejde og anden virksomhed/medlem af faglige og videnskabelige udvalg

Rita Laursen Dansk Fertilitetsselskab, udarbejdelse af national guideline i forbindelse med udredningen af mandlig infertilitet.

Videnskabelig reviewer

Peter Humaidan

Human Reproduction

Fertility and Sterility

Reproductive Biomedicine Online

Reproductive Biology and Endocrinology

Acta Obstetrica et Gynecologica Scandinavica

Archives of Gynecology and Obstetrics

Obstetrics and Gynecology

Gynecological Endocrinology

Womens Health

Asian Journal of Andrology

Alice Toft Mikkelsen

Reproductive Biomedicine Online

Videnskabelig bedømmer PhD

Peter Humaidan

Lea Langhoff Thuesen

Supplementation of hCG to rFSH during controlled ovarian stimulation for in vitro fertilization: A randomized controlled dose-response study, clinical, embryological, endocrine, and genetic aspects.

Faculty of Health Sciences, University of Copenhagen, Denmark 2013; August 30th