

**Forskningsaktiviteter 2015**  
**Fertilitetsklinikken Regionshospitalet Skive**

a) **Forskningsansvarlig.**

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

b) **Ansatte med dr.med.-grad.**

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

c) **Ansatte med ph.d.-grad.**

Adjungeret Professor Nikos Polyzos  
Aarhus Universitet  
n.polyzos@gmail.com

Dato 09-02-2016

d) **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

Side 1

e) **Lektorer**

Overlæge Birgit Alsbjerg  
Ekstern lektor, Aarhus Universitet  
78444560, Alsbjerg@dadlnet.dk

f) **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

g) **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.

**h) Ph.d.-afhandlinger/disputatser.**

(Afsluttet i 2015. Navn, titel samt universitet)

**i) Vejledning – eksterne ph.d.-studerende.**

Mia Steengaard Olesen, PhD

Therapeutic endometrial trauma for enhancement of embryo implantation

*Faculty of Health Sciences, Aarhus University, Denmark*

Medvejleder: Prof. Peter Humaidan

Diana Kjær Thing Ricknagel, PhD

AMOR - Acoustic Monitoring of Obstetric Risks,

*Aalborg University, Denmark*

Medvejleder: Prof. Peter Humaidan

Louise Bang Grode, PhD

Celiac disease and infertility among men and women in Denmark

*Faculty of Health Sciences, Aarhus University, Denmark*

Medvejleder: Prof. Peter Humaidan

**j) Præsentation af afdelingens vigtigste forsknings-aktivitet.**

2015 har på Fertilitetsklinikken været et år med stor aktivitet på forskningsområdet.

Der er mange projekter i gang og mange nye er opstartet i 2015.

Alle klinikkenes medarbejdere yder fortsat en kæmpeindsats for at få projekterne til at køre godt.

1. april fik klinikken tilknyttet adjungeret professor Nikos Polyzos (Bruxelles) og ser frem til dette samarbejde, der allerede har resulteret i et nyopstartet projekt og der er flere i støbeskeen.

2. maj. afsluttede vores forskningsårsstuderende sin opgave med et flot forsvar.

I juli var en stor gruppe til ESHRE, hvor vi bl.a. havde en posterpræsentation.

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

Vi arbejder fortsat på at blive Universitetsklinik, der er nu 2 Ph.d. studerende samt flere tilknyttede. 1 overlæge er i gang med et ekspertforløb og har i 2015 været på et 3 måneders ophold i Perth, Australien.

Vi deltager aktivt i flere regionale forskningsprojekter og arbejder på at få flere op at stå.

**k) Liste over igangværende forskningsprojekter opdelt i:**

**1) Forsker-initierede projekter.**

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

-The exogenous progesterone free luteal phase after GnRHa trigger – a randomized controlled pilot study in normo-responder IVF patients  
Forskerinitieret. Kontaktperson: Peter Humaidan

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-The exogenous progesterone free luteal phase after GnRHa trigger – a randomized controlled pilot study in high-responder IVF patients  
Forskerinitieret. Kontaktperson: Peter Humaidan

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-Optimizing IVF by culture in the EmbryoScope™ time-lapse system  
Forskerinitieret. Kontaktperson: Betina Boel Povlsen

-Gram staining, PCR or PNA FISH analysis for detection and classification of Bacterial Vaginosis - a prospective study in a Danish IVF setting  
Forskerinitieret. Kontaktperson: Thor Haahr

-Betydningen af mid-lutealt progesteron og  
Preimplantations faktor (PIF) for opnåelse af succesfuld  
implantation og on-going graviditet efter IVF/ICSIbehandling  
Forskerinitieret. Kontaktperson : Lise Thomsen

- Testosterone TRANSdermal gel for Poor Ovarian Responders Trial  
Investigator initieret studie v/ Nikolaus P Polyzos, MD PhD, Fertility Specialist,  
Universitair Ziekenhuis, Brussel  
Investigator: Professor Peter Humaidan.

- Forekomsten af cøliaki blandt mænd og kvinder I fertilitetsbehandling.  
v. Phd. Studerende Lise Bang Grode Horsens/Aarhus Universitetshospital  
investigator: Peter Humaidan

-Laserbehandling –en ny behandling i fertilitetsbehandling? et pilotstudie.  
Forskerinitieret. Kontaktperson overlæge Helle Elbæk

## 2) Medicinalindustri-initierede projekter.

Brugerevaluering af FSH pen system  
FInox Biotech AB

### l) Videnskabelige og populærvidenskabelige publikationer offentliggjort i 2015.

Andersen CY, **Elbaek HO, Alsbjerg B, Laursen RJ, Povlsen BB, Thomsen L, Humaidan P.**

Daily low-dose hCG stimulation during the luteal phase combined with GnRHa triggered IVF cycles without exogenous progesterone: a proof of concept trial. *Hum Reprod.* 2015 Oct;30(10):2387-95.

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Borg CS, **Humaidan P**, Noer H, Majeed HG.  
Endometrial Stromal Nodule: A Rarity and a Pathological Challenge.  
*Case Rep Obstet Gynecol* 2015;2015:376817.

**Humaidan P**, Engmann L, Benadiva C.

Luteal phase supplementation after gonadotropin-releasing hormone agonist trigger in fresh embryo transfer: the American versus European approaches.  
*Fertil Steril* 2015 Apr;103(4):879-885.

**Humaidan P**, Schertz J, Fischer R.

Efficacy and Safety of Pergoveris in Assisted Reproductive Technology-ESPART: rationale and design of a randomised controlled trial in poor ovarian responders undergoing IVF/ICSI treatment.  
*BMJ Open* 2015 Jul 3;5(7):e008297-2015-008297.

Kol S, Breyzman T, Segal L, **Humaidan P.**

'Luteal coasting' after GnRH agonist trigger - individualized, HCG-based, progesterone-free luteal support in 'high responders': a case series.  
*Reprod Biomed Online.* 2015 Dec;31(6):747-51.

Kol S, **Humaidan P, Alsbjerg B**, Engmann L, Benadiva C, Garcia-Velasco JA, Fatemi H, Andersen CY.

The updated Cochrane review 2014 on GnRH agonist trigger: repeating the same errors.  
*Reprod Biomed Online.* 2015 Jun;30(6):563-5.

Lan V, Tuong H, **Humaidan P.**

GnRHa trigger in Asian oocyte donors co-treated with a GnRH antagonist - the first randomized GnRHa trigger dose finding study.  
*Human Reproduction* 2015 JUN;30:417-417.

**Laursen RJ**, Tuttelmann F, **Humaidan P**, **Elbaek HO**, **Alsbjerg B**, Ropke A.  
Azoospermia and ring chromosome 9--a case report.  
J Assist Reprod Genet 2015 Feb;32(2):293-296.

Ngoc Lan VT, Tuong HM, Duc HT, Tuan PH, Bao HG, **Humaidan P**.  
Gonadotropin-releasing hormone agonist trigger in oocyte donors co-treated with a gonadotropin-releasing hormone antagonist: a dose-finding study.  
Fertil Steril 2015 Oct 30;[Epub ahead of print].

Ozgur K, Berkkanoglu M, Bulut H, **Humaidan P**, Coetzee K.  
Agonist depot versus OCP programming of frozen embryo transfer: a retrospective analysis of freeze-all cycles.  
J Assist Reprod Genet 2015 Dec 23;[Epub ahead of print].

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Ozgur K, Berkkanoglu M, Bulut H, **Humaidan P**, Coetzee K.  
Perinatal outcomes after fresh versus vitrified-warmed blastocyst transfer: retrospective analysis.  
Fertil Steril 2015 Oct;104(4):899-907.e3.

Side 5

**Polyzos NP**, Corona R, Van De Vijver A, Blockeel C, Drakopoulos P, Vloeberghs V, De Vos M, Camus M, **Humaidan P**, Tournaye H.  
Corifollitropin alfa followed by hpHMG in GnRH agonist protocols. Two prospective feasibility studies in poor ovarian responders.  
Gynecol Endocrinol 2015 Nov;31(11):885-890.

Shim S, Borg CS, Majeed HG, **Humaidan P**.  
Paraurethral leiomyoma in a postmenopausal woman: first European case.  
Case Rep Obstet Gynecol 2015;2015:542963.

**Thomsen L**, **Humaidan P**.  
Ovarian hyperstimulation syndrome in the 21st century: the role of gonadotropin-releasing hormone agonist trigger and kisspeptin.  
Curr Opin Obstet Gynecol. 2015 Jun;27(3):210-4.

Yarali H, Bozdog G, Polat M, Yarali I, **Humaidan P**.  
Spontaneous clinical pregnancy following GNRH agonist trigger for final oocyte maturation and freeze-all approach: a case report.  
Reprod Biomed Online 2015 Nov 23;[Epub ahead of print].

**Betina B. Poulsen**, Lin Da Aw; **Rita J. Laursen**, Sandro C. Estevens, **Peter Humaidan**.

Pregnancy and birth after intracytoplasmic sperm injection with normal testicular spermatozoa in a patient with azoospermia and tail stump epididymak sperm

IBJU, vol. 41(6) 1220-1225, November, December 2015

**m) Undervisning.**

Overlæge Birgit Alsbjerg er ansat som klinisk lektor ved Aarhus Universitet og underviser medicinstuderende.

**n) Videnskabelige kongresser.**

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

**Invited speaker Peter Humaidan:**



GnRH agonist triggering  
SMART Masterclass  
London, England, 2015, November 5<sup>th</sup>

Luteal phase support – Modified approach  
SMART Masterclass  
London, England, 2015, November 5<sup>th</sup>

The combined use of FSH and HCG during follicular phase, GnRHa trigger and low dose HCG luteal phase support – A proof of concept study  
IBSA Scandinavia Launch  
Copenhagen, Denmark, 2015, November 3<sup>rd</sup>

The luteal phase after GnRHa triggering  
5<sup>th</sup> Turkish Congress of Society of Reproductive Medicine and Surgery  
Antalya, Turkey, 2015, October 29<sup>th</sup> – November 1<sup>st</sup>

OHSS after GnRHa triggering  
5<sup>th</sup> Turkish Congress of Society of Reproductive Medicine and Surgery  
Antalya, Turkey, 2015, October 29<sup>th</sup> – November 1<sup>st</sup>

Molecular and physiological differences between LH and HCG  
5<sup>th</sup> Turkish Congress of Society of Reproductive Medicine and Surgery  
Antalya, Turkey, 2015, October 29<sup>th</sup> – November 1<sup>st</sup>

LH protocols – when to start, which doses?  
5<sup>th</sup> Turkish Congress of Society of Reproductive Medicine and Surgery  
Antalya, Turkey, 2015, October 29<sup>th</sup> – November 1<sup>st</sup>

LH protocols in ART – why, when, how much and type of LH activity  
5<sup>th</sup> Turkish Congress of Society of Reproductive Medicine and Surgery  
Antalya, Turkey, 2015, October 29<sup>th</sup> – November 1<sup>st</sup>

Treatment of the IVF endometriosis patient  
Danish IVF specialist meeting  
*Copenhagen, Denmark, 2015, October 8<sup>th</sup>*

Individualization of stimulation protocols based on patient characteristics  
ISIVF, 18<sup>th</sup> World Congress  
*Copenhagen, Denmark, 2015, September 28<sup>th</sup>*

Definition, diagnosis and treatment of the poor responder patient  
ISIVF, 18<sup>th</sup> World Congress  
*Copenhagen, Denmark, 2015, September 28<sup>th</sup>*



COS in hyperresponders and OHSS in 2015  
International Clinical Observational Program  
Karolinska Sjukhus  
*Stockholm, Sweden, 2015, September 14<sup>th</sup>*

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Vers le concept de "hyperstimulation free clinic"  
50 Ans de gonadotrophines  
*Bordeaux, France, 2015, September 12<sup>th</sup>*

GnRHa triggering of final oocyte maturation  
7<sup>th</sup> World Congress of Ovulation Induction  
*Bologna, Italy, 2015, September 3-5<sup>th</sup>*

Reprofacts 2015  
Definition, diagnosis and treatment of the poor responder patient  
*Frankfurt, Germany, 2016, June 26<sup>th</sup>*

Definition, diagnosis and treatment of the poor responder patient  
ESHRE  
*Lisabon, Protugal, 2015, June 14-17<sup>th</sup>*

The enigma of the luteal phase  
French Fertility Society  
*Marseille, France, 2015, May 21-22<sup>nd</sup>*  
Reproductive physiology  
Maximising outcomes in ART with iCOS  
LIFE  
*Jakarta, Indonesia, 2015, May 16-17<sup>th</sup>*

LH add back in ART – why, when, how much and which type

Maximising outcomes in ART with iCOS  
LIFE  
*Jakarta, Indonesia, 2015, May 16-17<sup>th</sup>*

Treatment in Art with no OHSS – is it possible?  
3<sup>rd</sup> Symposium Fertility Today  
*Sevilla, Spain, 2015; May 8-9<sup>th</sup>*

The changing role of GnRHa trigger: Future or Fad  
4<sup>th</sup> Malaysian Reproductive Congress  
*Penang, Malaysia, 2015, April 17-19<sup>th</sup>*

Cycle programming and luteal support in GnRHa trigger programmes  
4<sup>th</sup> Malaysian Reproductive Congress  
*Penang, Malaysia, 2015, April 17-19<sup>th</sup>*

Treating the poor responder patient – what now?  
Asia Pacific Fertility Expert Meeting  
*Taipei, Taiwan, 2015, March 22<sup>nd</sup>*

Fresh transfer after GnRHa trigger  
Asia Pacific Fertility Expert Meeting  
*Taipei, Taiwan, 2015, March 21<sup>st</sup>*

GnRHa trigger – a closer look at the history  
Asia Pacific Fertility Expert Meeting  
*Taipei, Taiwan, 2015, March 21<sup>st</sup>*

GnRHa trigger state of the ART  
Swedish IVF specialists  
*Stockholm, Sweden, 2015, March 12<sup>th</sup>*

GnRHa trigger state of the ART  
Swedish IVF specialists  
*Gothenburg, Sweden, 2015, March 11<sup>th</sup>*

GnRHa trigger state of the ART  
Swedish IVF specialists  
*Malmo, Sweden, 2015, March 10<sup>th</sup>*

LH - Myths and facts in ART  
Lebanese reproductive society  
*Beirut, Lebanon, 2015, February 27<sup>th</sup>*



Number of oocytes and progesterone levels in IVF – do they matter?  
Fakih IVF Symposium  
*Dubai, UAE, 2015, February 26<sup>th</sup>*

Advanced approaches in ovarian stimulation  
In Health plus IVF Center  
*Abu Dhabi, UAE, 2015, February 25<sup>th</sup>*

Poor responders – what is the best approach  
Fakih IVF Symposium  
*Dubai, UAE, 2015, February 25<sup>th</sup>*  
Thin endometrium and RIF

Individualization and managing  
protocols of assisted reproductive techniques  
IMPART II  
*Abu Dhabi, UAE, 2015, 6-7<sup>th</sup>, February*

Matching patients segmentation with protocols  
Individualization and managing  
protocols of assisted reproductive techniques  
IMPART II  
*Abu Dhabi, UAE, 2015, 6-7<sup>th</sup>, February*

GnRHa trigger for IVF patients and oocyte donors  
Oocyte donation in Switzerland  
Conference Reproductive Medicine  
*Basel, Switzerland, 2015, 30-31<sup>st</sup>, January*

Role of LH in luteal phase  
Excemed symposium  
*Hamburg, Germany, 2015, 23<sup>rd</sup>-24<sup>th</sup> January*

LH add back in ART  
Excemed symposium  
*Hamburg, Germany, 2015, 23<sup>rd</sup>-24<sup>th</sup> January*

### **Chairman Peter Humaidan:**

Strategies for preventing OHSS  
ISIVF, 18<sup>th</sup> World Congress  
*Copenhagen, Denmark, 2015, September 28<sup>th</sup>*

Folliculogenesis – still a lot to learn  
ISIVF, 18<sup>th</sup> World Congress  
*Copenhagen, Denmark, 2015, September 28<sup>th</sup>*

Progress in highly purified gonadotropin development  
7<sup>th</sup> World Congress of Ovulation Induction  
Bologna, Italy, 2015, September 3-5<sup>th</sup>

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Side 10

Recurrent implantation failure  
Individualization and managing  
protocols of assisted reproductive techniques  
IMPART II  
Abu Dhabi, UAE, 2015, 6-7<sup>th</sup>, February

Recurrent implantation failure  
Individualization and managing  
protocols of assisted reproductive techniques  
IMPART II  
Abu Dhabi, UAE, 2015, 6-7<sup>th</sup>, February

### **Oral Presentation I Riga:**

Gram staining and qPCR for detection and classification of abnormal vaginal Flora – a clinical study in a Danish IVF setting. **T.Haahr.**

### **Oral presentation ved NFS I Reykjavik aug. 2015**

Short time gamete co-incubation and denudation of IVF oocytes cultured in a time-lapse system. **Betina B. Poulsen**

### **Poster præsentation ved Forskningens dag HE Midt**

The progesterone free luteal phase in IVF – Exploring a new concept  
**Elbaek H.O, Alsbjerg B, Lauersen R, Povlsen B.B, Mikkelsen A.T,**  
Andersen CY , **Humaidan P**

### **Poster presentation ved ESHRE**

Gram staining and qPCR for detection and classification of abnormal vaginal Flora – a clinical study in a Danish IVF setting. **T.Haahr.**

**o) Udvalgsarbejde og anden virksomhed/medlem af faglige og videnskabelige udvalg.**

Fertilitetsklinikken stod for at arrangere det årlige akademikermøde i Dansk Fertilitetsselskab i oktober 2015 med planlægning af det faglige program m.m

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**p) Videnskabelig bedømmelse.**

**(Peter Humaidan**

Side 11

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

**Birgit Alsbjerg**

European Journal of Obstetrics & Gynecology and Reproductive Biology

Human Reproduction

Reproductive Biomedicine Online

**q) Priser, legater og fondsdonationer.**

Til projektet: Gram staining, PCR or PNA FISH analysis for detection and classification of bacterial vaginosis- - a prospective study in a Danish IVF setting er der givet:

2 x 3.500kr fra Oticonfonden til posterpræsentation ved ESHRE og en oral presentation i Letland.

Til projektet ( Phd stadium): The impact of mid-luteal progesterone on the reproductive

outcome of in vitro fertilization therapy er der givet følgende donationer:

-50.000kr fra Marshalls Fond samt

-50.000kr fra Fonden til lægevidenskabens fremme.

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