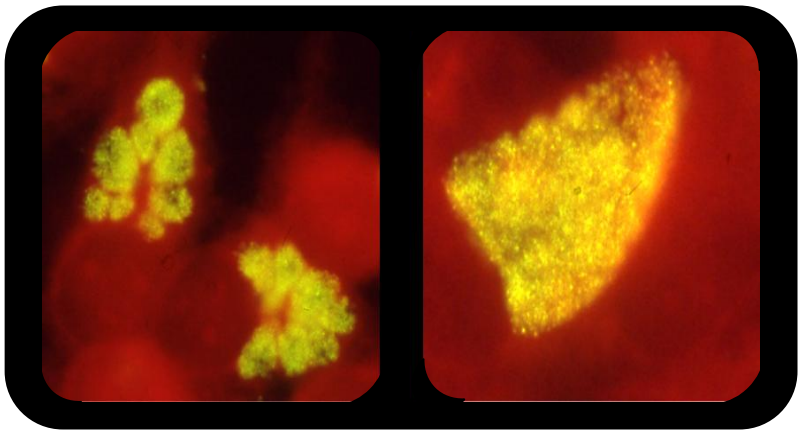


3rd Minisymposium

Chlamydia trachomatis

Infections



VU University Medical Centre
Amsterdam

18 December 2006
13.30 – 17.00

Preface

Welcome: Like the first and second also this “Third Mini-symposium *Chlamydia trachomatis* infections” has been organized by the Laboratory of Immunogenetics, Department of Pathology, of the VU University medical centre (VUmc) and coincides with the PhD defence of Sander Ouburg with his thesis entitled: Immunogenetics of inflammation and infection in the gastrointestinal and urogenital tracts”. We are confident that Prof. Michael Ward, Joe Lyons, Prof. Marius Domeika, and Prof Angelika Stary as our four foreign speakers, together with the Dutch speakers will spark the minds of both young as well as established chlamydiologists and trigger valuable discussions this day!

The Laboratory of Immunogenetics: Established by Prof. A.S. Peña in 1992, we have recently become part of the Department of Pathology (Head Prof. Chris J.L.M. Meijer) providing a change for further development of the discipline Immunogenetics. The Laboratory links fundamental scientific research and clinical applications (translational research). Research is divided into two interactive and productive lines: chronic inflammatory diseases (J.B.A. Crusius, PhD) and infectious diseases (S.A. Morré, PhD). Studies in twins and adopted children have shown that host genetic factors form an important element in the susceptibility to and the severity of infectious diseases including *Chlamydia trachomatis* infections in humans. Bacterial, environmental and host genetic factors determine the clinical course of *C. trachomatis* infections and integrated approaches are used to study these factors.

Acknowledgements:

We wish to express our gratitude to Prof. Sven A. Danner, Head of Internal Medicine of the VUmc Amsterdam, and Prof Cathrien Bruggeman, Head of Medical Microbiology of the Academic Hospital Maastricht, who both actively support the immunogenetic research in infectious diseases. We also like to express our profound gratitude to Prous Science, in Barcelona, in particular to Dr. Joseph R. Prous, President, for the continuous support for Immunogenetics. In addition, we would like to thank our main sponsors of this symposium and the PhD thesis of Sander Ouburg: AstraZeneca, Roche Diagnostics and BMD, and also our many other sponsors. Finally, we are grateful to those involved in the organisation, with a special thanks to Sander Ouburg.



A handwritten signature in black ink, appearing to read "A. Salvador Peña".

A. Salvador Peña

Head of the Laboratory of Immunogenetics
Department of Pathology, VUmc
Amsterdam, The Netherlands



A handwritten signature in blue ink, appearing to read "S. Morré".

Servaas A. Morré

Research Coordinator
Immunogenetics of Infectious Diseases
Department of Pathology, VUmc
Amsterdam, the Netherlands

Cover photographs: Immunofluorescence staining of *Chlamydia trachomatis* within epithelial cells. HeLa cells were infected with a clinical isolate and stained with a monoclonal antibody specific for the major outer membrane protein (OmpA) of *C. trachomatis*. The left panel shows a nonfusogenic phenotype, while the right panel shows a fusogenic phenotype. Images courtesy of Yvonne Pannekoek, Department of Medical Microbiology, Academic Medical Center, Amsterdam, The Netherlands.

Programme

10.45 – 12.15 **PhD Defence of Sander Ouburg**

12.15 – 13.30 Time to congratulate the PhD candidate
Lunch
Registration to the minisymposium

13.30 – 17.00 **Opening**

Prof. A. Salvador Peña

Head Laboratory of Immunogenetics

Servaas A. Morré

Coordinator Immunogenetics of Infectious Diseases

Prof. Michael E. Ward (UK)

Chlamydia control and the law of unexpected consequences

Joseph M. Lyons (USA)

*An Integrated Approach to the Study of Chlamydia trachomatis
Infection of the Female Genital Tract - Past, Present, and Future*

Prof. Marius Domeika (SE)

*Situation on diagnosis of STIs in Eastern Europe and steps taken
towards the improvement of it: Establishment of SRHR Network
for EE Countries*

Prof. Angelika Stary (AU)

*Chlamydia Diagnosis from Noninvasive Specimens in Men and
Women by NAATs*

Prof. Jolande A. Land (NL)

Tubal factor subfertility: diagnostic possibilities

Han Fennema (NL)

Chlamydia screening in the Netherlands: State of the art

Henry de Vries (NL)

Lymphogranuloma Venereum: New insights in risk factors

17.00 **Closing remarks**

17.00 – 17.30 **Drinks**



Michael Ward, PhD

University of Southampton, UK

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Curriculum Vitae

Michael Ward was Professor of Medical Microbiology of the University of Southampton, in the United Kingdom. He graduated in Microbiology from University College, London University in 1967 and completed a PhD on gonococci in 1970 under Professor Alan Glynn at the Wright-Fleming Institute of St Mary's Hospital, London (where penicillin was discovered). He moved to the "new" medical school at Southampton in 1972 and has been unwilling to leave ever since.

His early work concerned the pathogenesis of gonococcal infection. He published the first electron micrographs of the *in vivo* adhesion of gonococci to human epithelia and described the process by which gonococci invade perfused human fallopian tube *in vitro*. One of the few people in the world to have been vaccinated with self-prepared gonococcal pilli, a major gonococcal adhesion factor, he lamentably lacked the courage to 'bed test' this 'vaccine' when its unsuitability became clear! In 1979 he switched to *chlamydiae* as an alternative model of exploring bacterial invasion of human cells. His was one of three groups which in 1981 co-discovered the *chlamydial* major outer membrane protein (MOMP), which remains the main *chlamydial* vaccine candidate. This was followed, in collaboration with Ian Clarke and others, by the initial characterization of genes encoding various chlamydial surface or envelope antigens and, with Wayne Conlan, the high resolution mapping of neutralizing epitopes on MOMP. A fruitful collaboration with David Mabey and Robin Bailey followed on the molecular epidemiology of trachoma in The Gambia, W. Africa. His interest in gonococcal and *chlamydial* infections resulted in him serving for 6 years on the steering group of the WHO task force on infertility. In collaboration with cardiologist Yuk-ki Wong and others, he has published a series of papers challenging accepted thinking on the role of *Chlamydophila pneumoniae* in coronary artery disease. He is the author of a large number of papers on *chlamydial* infections and contributed the chapter on *chlamydial* disease mechanisms to the current authoritative American Society of Microbiology Book on *Chlamydia* (1999). An increasing role in IT and e-learning resulted in him becoming, as well as a microbiologist, the Director of the Information and Computing Division in Southampton. This provided the technical background for



Joseph M. Lyons, PhD

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Curriculum vitae

Joseph M. Lyons, PhD, is a Support Scientist in the Department of Infectious Diseases at the City of Hope National Medical Center and the Beckman Research Institute. He attended San Diego State University, earning both Bachelor's (1969) and Master's (1972) degrees in Microbiology with a minor emphasis in Philosophy. He commenced his research career in the Department of Infectious Diseases at the University of California, San Diego, under the direct supervision of Professor Abraham I. Braude, MD, PhD. In this role, he was responsible for developing animal models of human infectious diseases and the methods needed to assess both the host and infectious agent factors that contribute to the pathology and immunology of infection. He held this position until 1983, when he accepted the position of Supervisor in the Department of Infectious Diseases Research Laboratory of James I. Ito, MD, at the City of Hope. In this capacity, he continues to develop animal models of human diseases with current efforts focused on *Chlamydia trachomatis* female genital tract infection and pulmonary aspergillosis in the immunosuppressed host. The aims of this research are to develop more effective diagnostic and therapeutic methods to prevent and treat infections with these agents, including traditional antibiotic approaches as well as the use of immune modulators and active immunization to provide protection against colonization and early events in the infection process. In 2004, Joseph earned his PhD from Vrije Universiteit Medical Centre in the Laboratory of Immunogenetics (Head: Professor A.S. Peña, MD, PhD, FRCP, AGAF; and Project-leader: S.A. Morr , PhD) by successfully defending a thesis entitled: An Integrated Approach to the Study of *Chlamydia trachomatis* Infection of the Female Genital Tract.

Abstract

In its conception more than 8 years ago, the integrated approach to the study of *Chlamydia trachomatis* infection of the female genital tract was a conceptual construct in which to integrate scientific information from diverse sources, in

order to identify host immune factors that might play a role in the susceptibility to infection and the severity of disease following one or more encounters with this agent. Its original aim was the identification of candidate genes that might be associated with the spectrum of outcomes observed in women - being guided in the gene selection process by an integrated evaluation of both the available epidemiologic and clinical data and data from relevant in vitro cell and tissue culture based systems and animal models of disease.

Using the then relatively new, tedious and labour intensive technique of single nucleotide polymorphism (SNP) analysis, a list of candidate genes were assessed that had been shown to play a role in other chlamydial diseases, particularly trachoma, and in murine models of female genital tract infection that utilized gene knockout mice. Yet despite the efforts of an ever-expanding international consortium of clinicians and basic scientists committed to this approach, the level of increased or decreased risk of susceptibility to or severity of disease associated with any of the single genes or multi-gene complexes studied to date has remained disappointingly low.

However, given recent technologic advances in multi-SNP analysis, there is good reason to think that, within the foreseeable future, it will be possible to identify the complex carrier traits that define particular outcomes that are linked with infection. As fantastic as this event will be, it will be but the beginning of the efforts to determine the mechanisms through which these genes act, and, based on that understanding, to develop effective disease intervention and infection prevention strategies. These efforts will rely almost solely on those in vitro cell and tissue culture based systems and animal models of disease that in the past served to guide candidate gene selection. Although adequate for this use, these methodologies will need to be remodelled in order to meet the more stringent requirements associated with translational research.

The past, present and future of the integrated approach to the study of *Chlamydia trachomatis* infection of the female genital tract will be addressed in the terms of the complex adaptive system paradigm, which is a model that calls us to engage both the object of study and our relationship with that object as complex, ever-changing and non-linear phenomena.



Marius Domeika, MD, PhD

Department of Medical Sciences, Uppsala University, On behalf of the Sexual Reproductive Health and Rights Network Group, Uppsala, Sweden

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Curriculum vitae

Prof. Marius Domeika, was born in Lithuania, and is currently conducting international and Swedish projects related to improvement of diagnosis, prevention and management of STIs at the Uppsala University, in Uppsala, Sweden. For the last years he has been directing WHO Coll Ctr for Diagnosis and Research of *Chlamydial* and Other Reproductive Tract Infections and has established networks inside the international projects in Eastern Europe and Sweden (STIGUP; www.stigup.se) including the SRHR Network for Eastern and Central European, Middle Asia and Western Balkans.

His current positions include Adviser (Dermatovenereology) of the Lithuanian Health Ministry, Swedish representative for the HIV Task Force group, and manager of the STI group Uppsala (STIGUP), Sweden.

Previously he has been Director of the ViraLab (Production of diagnostic tests for diagnosis of *Chlamydia trachomatis* and *Chlamydia psittaci* infections) and Director of the laboratory for the Diagnosis of *Chlamydial* Infections (in Lithuania), and representative at WHO Task force group (Planning, contracting agreements, group working) at WHO Europe.

He has a background in veterinary sciences and medical sciences: In 1981 he received his Veterinary doctor degree at the Lithuanian Veterinary Academy, Kaunas, Lithuania, in 1986 he received his Doctor degree of Veterinary Sciences (Veterinary microbiology / mycology / virology / epidemiology) at the All Union Moscow Institute of Virology, Medical Academy USSR, Russia, and in 1994 he received his Doctor degree of medical sciences (Clinical bacteriology / diagnosis, epidemiology of sexually transmitted infections), at the Institute of Clinical Bacteriology, Uppsala University, Uppsala, Sweden.

Abstract

The general aim: promotion and synchronization of the Sexual and Reproductive Health and Rights development (with special emphasis on optimization of diagnosis and management of reproductive tract infections) in the countries of the relevant region.



Angelika Stary, MD, PhD

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Curriculum vitae

A. Stary was born in Vienna and graduated in medicine from the Medical University in Vienna. She got a special education on medical virology at the Institute of Virology (Univ. Prof. Dr. Christian Kunz) and moved afterwards to the Municipal Hospital in Vienna where she was subsequently trained in Dermatovenereology, working there for several years as senior doctor. In addition, A. Stary has been associated with the Ludwig Boltzman Institute of the Dermatological Department of the University Hospital in Vienna where she was responsible for the performance of scientific studies on STI epidemiology and diagnosis and established different methods for chlamydia diagnosis. In 1995 she got the university degree as „Universitätsdozent“ and is since then lecturer at the University of Vienna. In April 2004 she got the title “university professor” from the University of Vienna, signed by the president of Austria.

Since 1988 she is the head of the Outpatients` Centres for Diagnosis of Infectious Venero-Dermatological Diseases, where patients are sent to in case of diagnostic evaluation of sexually transmitted infections or other infectious dermatological diseases.

She has a special interest in *chlamydial* infections and their diagnosis, and organized and chaired the Third European *Chlamydia* Meeting in 1996 in Vienna. She has published results of several multicentre comparison studies on chlamydial diagnosis conducted in Europe and got practical experience with all available diagnostic chlamydia tests. She has been invited as speaker and chair to several international STI meetings and has been elected as Board member of the ISSTD from 1999 to 2005 where she still holds the position as an ex officio member. From 2001 until 2005 she acted as the Regional Director for the European Branch of the International Society against Sexually Transmitted Infections (IUSTI) and has organized the IUSTI-Europe Congress 2002 in Vienna. At the IUSTI world conference in Bangkok in November 2005 she was nominated as the president for IUSTI worldwide and will hold this position until 2009.

Abstract

Nucleic acid amplification techniques (NAATs) are the most recent and important advantage in the field of *chlamydia* diagnosis. They enable the detection of a low number of organisms even in contaminated noninvasive specimen types in men and women with a high sensitivity and specificity. The number of NAATs has increased during the last years. In addition to DNA amplification by PCR

(COBAS Amplicor) and by strand displacement amplification (ProbeTec), the amplification of chlamydial RNA is used in the highly sensitive and specific Transcript Mediated Amplification assay (TMA). The Gen-Probe APTIMA Combo 2 Assay is a second generation NAAT that utilizes target capture, transcription mediated amplification of RNA and dual kinetic assay technologies. This assay qualitatively detects *Chlamydia trachomatis* only (APTIMA CT) or *Chlamydia trachomatis* together with *Neisseria gonorrhoeae* (APTIMA Combo 2) in endocervical and urethral swab specimens as well as in urine samples from symptomatic and asymptomatic individuals and is already FDA approved for testing vaginal swabs.

The advantage of the NAATs is their ability to detect organisms even with a low target concentration in specimens. This especially occurs in genital samples of asymptomatic individuals and their contact persons without signs of inflammation in noninvasive specimens such as first void urine (FVU), vaginal swabs, and introital specimens. Several studies have already proven that vaginal or vulval swabs are reliable specimen types for chlamydia diagnosis when using the APTIMA system. Even penile swabs can be recommended in case a high sensitivity assay is used for the diagnostic procedure and individuals are sufficiently informed about the sampling procedure. This has been proven in a study in asymptomatic military recruits in comparison with symptomatic STI patients by using penile and urine samples.

The high sensitivity of NAATs for noninvasive samples is an important approach for screening asymptomatic individuals at risk for being infected with *C. trachomatis*. This is of utmost importance since it has to be considered that 70-80% of women and up to 50% of men infected with *C. trachomatis* do not experience any clinical symptoms and act as an unrecognized large reservoir of infected persons, capable to transmit the infection to their partner or to newborns.



Jolande A. Land, MD, PhD

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*Dept. of Obstetrics and Gynecology,
UMC Groningen, Groningen, The
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Curriculum vitae

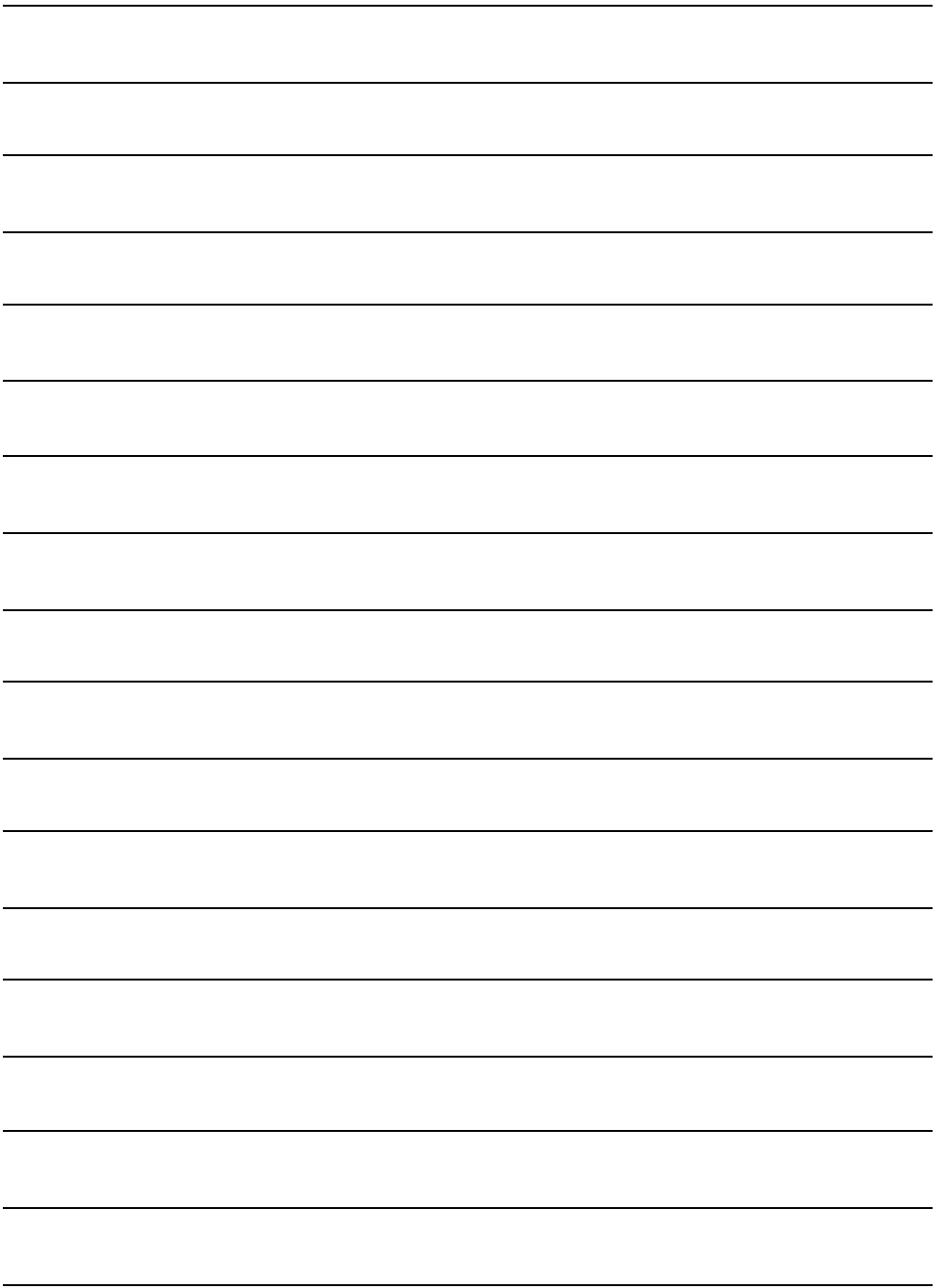
Jolande A. Land is a professor in Obstetrics and Gynaecology. Recently she moved from the academic hospital Maastricht to the University Medical Center in Groningen to become head of the division of Reproductive Medicine. Her research has focussed on diagnostic testing in subfertile couples, and the role of Chlamydia in serological screening for tubal factor subfertility in particular. She is a member of the ICTI consortium.

Abstract

Chlamydia IgG antibody testing (CAT) in serum is widely used as a screening test for tubal factor subfertility. The aim of screening is to distinguish subfertile women at a low risk for tubal pathology from women at a high risk, and to subject the high risk patients only to invasive and costly diagnostic testing (i.e. laparoscopy). Although a positive CAT test is indicative of a previous Chlamydia infection, its accuracy in predicting tubal pathology is limited (PPV 62%, NPV 90%). To improve the predictive value of CAT, factors which might affect the course and outcome of infection have been studied. By measuring C-reactive protein (CRP), an indicator of chronic inflammation, a subgroup of women at the highest risk for tubal pathology can be identified (CRP-CAT test combination: PPV 86%, NPV 86%). A trend was observed towards a higher risk of tubal pathology among carriers of multiple genetic variations in pattern recognition receptor (PRR) genes. It remains to be established whether immunogenetic analyses deserve a place in the fertility work-up.

Reference

Den Hartog JE, Morr  SA, Land JA. Hum Reprod Update 2006, 12(6):719-30.





Han Fennema, MD, PhD

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Curriculum vitae

Han Fennema was born in The Hague, The Netherlands (1955). After he graduated at the Free University Medical School in Amsterdam, he was trained in tropical medicine at the Institute of Tropical Medicine 'Prins Leopold' in Antwerp, Belgium. He worked in North - Colombia (province of El Chocó) in primary health care and in the support of building-up a regional vaccination program. Back in The Netherlands in 1986 he started working in the field of STI research: first as a fellow in epidemiological studies on risk factors for CT, performed at the outpatient STI clinic of the Amsterdam Public Health Service (GGD). Later followed by a long-standing involvement in the Amsterdam Cohort Studies on HIV/AIDS. After finishing his PhD thesis (1997, promotor prof. R.A. Coutinho), he was involved in the further development of clinical and epidemiological studies mainly focusing on HIV and other STIs, including CT. In 2000 he became director of the STI clinic, and in 2004 he was appointed head of the cluster of Infectious Diseases Control at the Amsterdam Public Health Service.

Abstract

Early detection and treatment (screening) of *Chlamydia trachomatis* (CT) infections is a strategy to reduce complications in infected individuals and to limit the spread of the infection in the population. In a recent publication, the Dutch National Health Council advises to start a pilot implementation.

The aim of this pilot implementation is first of all to make a serious start in *Chlamydia* screening and, secondly to determine feasibility, effectivity and cost-effectiveness.

The pilot implementation will cover a period of 3 years with 2 screening rounds. The pilot will be a selective, systematic, home-based screening of 16-29 year olds. New communication technologies will be used, like internet, email and SMS. Requests for testkits, information and instruction videos, and laboratory results will be accessible via internet using personal ID's and passwords.



Henry de Vries, MD, PhD

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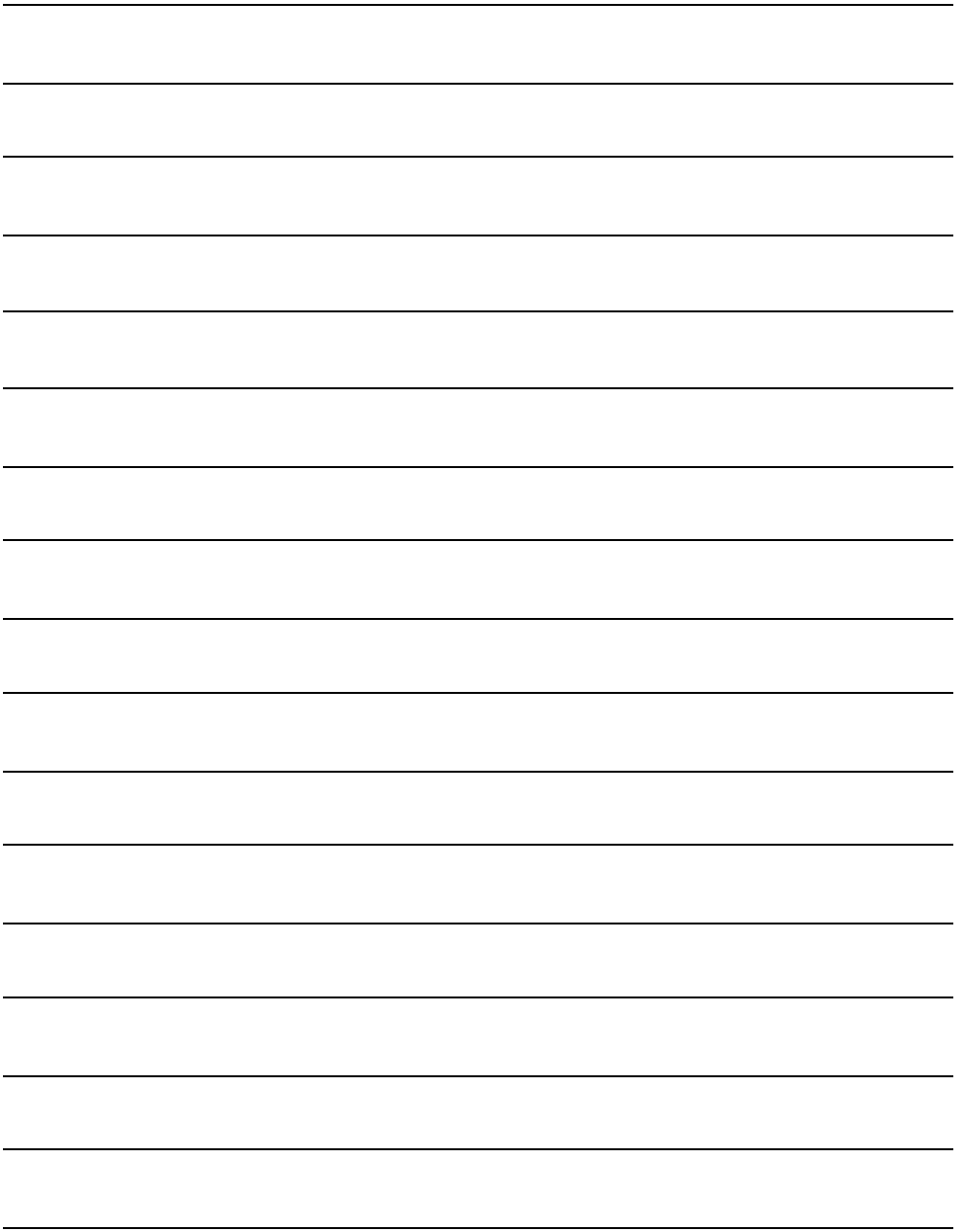
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Curriculum Vitae

Henry de Vries is a dermatologist-venereologist with expertise in infectious skin diseases especially sexually transmitted infections and tropical skin diseases. His PhD thesis in 1994 was focussed on cutaneous wound healing and was rewarded with the Leiden Hippocrates Study prize 1995, and the Sandoz Research Prize 1997. Recent research topics involve; lymphogranuloma venereum proctitis, an emerging STI in mostly HIV positive gay men in industrialised countries, cutaneous leishmaniasis, an emerging infectious ulcerative tropical skin disease, and the viral pathogenesis of lichen ruber planus. He works at the Amsterdam municipal health service STI outpatient clinic, with 22000 patients/year by far the largest STI setting in the country, and at the University of Amsterdam, Academic Medical Center, department of Dermatology.

Abstract

Recently, a slow lymphogranuloma venereum (LGV, caused by an aggressive *C. trachomatis* variant) epidemic among men who have sex with men (MSM) has been discovered. In a retrospective case-controlled study we have found that HIV status, proctoscopy and Gram stained anorectal smears are helpful parameters in LGV management. Moreover, a substantial part of the LGV infections do not cause severe clinical symptoms. This may hamper diagnostic, screening and prevention measures. Apart from LGV proctitis cases, we have found several inguinal cases, which are likely key in the transmission of LGV. This indicates the importance of screening MSM with genital ulcers and bubos on LGV. With molecular diagnostic analysis not all LGV can be ruled out, stressing the need for additional LGV diagnostics and/or syndromic guidelines for LGV management. A strong association between enema use and LGV was found which could be explained by the breakdown of the mucosal barrier facilitating the infestation of CT organisms.





Minisymposium Organizer

Servaas A. Morré

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Curriculum vitae

Servaas A. Morré, PhD, who has been working on *Chlamydia trachomatis* for almost 12 years, graduated at the VU University, the Netherlands, in Biochemistry and Molecular Biology in 1994. He worked at The Zaadunie, Department of Cell biology on polyploidization of *Brassica oleracea* (Cauliflower) during cell culture (M. Tan, PhD) and at the Department of Biochemistry and Molecular Biology VU on processing of ribosomal RNAs in *Saccharomyces cerevisiae* (Prof. H. Raué, PhD, R. van Nues PhD).

As an Erasmus Fellow he studied at the Universidade Do Porto, Laboratório de Genética Molecular, Portugal, on POLO: an essential kinase for mitosis in *Drosophila melanogaster* (Prof. C. Sunkel, PhD).

His PhD thesis performed at the Department of Pathology (VU University) was on the epidemiology, diagnostics and immunopathogenesis of human urogenital *Chlamydia trachomatis* infections.

As a postdoc, the Van Coeverden Adriani Foundation made it possible to extend *Chlamydia* research at the Department of Infectious Diseases, The City of Hope Medical Center, California, USA, in collaboration with Dr. Jim Ito and Dr. Joseph Lyons, specialists in murine modeling. On the 1st of November 2001, he joined the Laboratory of Immunogenetics, VUmc. His research is focused on the immunogenetics of infectious diseases with still special attention to *Chlamydia trachomatis*, HIV (Prof. S. Danner & Dr. M. van Agtmael) and periodontitis (collaboration with ACTA). Studies on Human Papilloma Virus (HPV) infections have been initiated together with Prof. C.J.L.M. Meijer in 2006. Together with Prof. Salvador Peña, he organized the "First Minisymposium *Chlamydia trachomatis* Infections" in December 2004 and in December 2006 we organize our already annual "Mini-symposium *Chlamydia trachomatis* Infections" for the third time.

He was a member on the Scientific Committee at the 16th Biennial meeting of the International Society for Sexually Transmitted Diseases Research (ISSTD) in July 2005 and organized amongst others the workshop "Immunogenetics of *Chlamydia trachomatis* Infections", with Prof. David Mabey (London, UK, Trachoma research). Together with Tjaco Ossewaarde and Yvonne Pannekoek, he coordinates the Dutch Chlamydia Working Party. He is coordinator of the International *Chlamydia* consortium ICTI (Integrated approach on *Chlamydia trachomatis* Infections). Finally, since 2006 he is Scientific Consortium Director, of a European Framework Programme 6 (FP6) grant (LIFESCIHEALTH FP6, Co-ordination Actions (CA)) in functional genomics research entitled: "Contribution of molecular epidemiology and host-pathogen genomics to understand *Chlamydia trachomatis* disease (Acronym: **EpiGenChlamydia**)" with 20 European, African and US groups. This consortium will have its first meeting in the beginning of 2007.

An overview of PhD work in The Netherlands on *Chlamydia trachomatis*

Table I: *PhD theses in the Netherlands*

2006 Sander Ouburg	VU University Amsterdam
2006 Joke Spaargaren*	University of Amsterdam and VU University Amsterdam
2006 Tanja P. Gijzen*	Maastricht University
2006 Hannelore M. Götz*	Erasmus University Rotterdam
2005 Jan E.A.M. van Bergen*	University of Amsterdam
2004 Joseph M. Lyons*	City of Hope Medical Center, CA, USA, and VU University Amsterdam
2003 Laura S. Murillo	VU University Amsterdam
2002 Monica Molano Luque	VU University Amsterdam
2001 Irene G.M. van Valkengoed*	VU University Amsterdam
1999 Servaas A. Morré*	VU University Amsterdam
1999 Johannes W. Trum	University of Amsterdam
1999 Bernardus W.J. Mol	University of Amsterdam
1998 Yvonne T.H.P. van Duijnhoven	University of Amsterdam
1997 Marita J.W. van de Laar	University of Amsterdam
1995 Jar Lan*	VU University Amsterdam
1994 Josina van Ulsen	Erasmus University Rotterdam
1994 Jacobus M. Ossewaarde*	University of Utrecht
1993 Hans J.H. Theunissen*	Erasmus University Rotterdam
1992 Johannes T.M. van der Schoot*	University of Amsterdam
1992 Arent J.P. Boeke and Janny H. Dekker	VU University Amsterdam
1992 André H. van der Willigen	Erasmus University Rotterdam
1991 Eric C.J. Claas	VU University Amsterdam
1990 Gijsbertus J.H.M. Ruijs*	Rijksuniversiteit Groningen
1987 Kie H. Tjiam*	Erasmus University Rotterdam

**Chlamydia trachomatis* is the major focus in the thesis.

Table II: *Current PhD fellows working (partially) on Chlamydia trachomatis.*

Janneke E. den Hartog	Maastricht University
Steven M. Westenberg	AMC, University of Amsterdam
Ingrid Rours	Erasmus University Rotterdam
Caroline J. Bax	University of Leiden / Medical Center Haaglanden
Arnold Catsburg	VU University Amsterdam
Vitaly Smelov	St. Petersburg State Medical University, Russia and VU University Amsterdam
Denise A.M. Perquin	University of Leiden / Medical Center Haaglanden

Attendants:

Title	Last name	Surname	Affiliation	E-mail
Dr	Bergen, van	Jan	SOA-AIDS Foundation	JvanBergen@soaaid.nl
	Boeck, de	Fabienne	UZG, Gent	Fabienne.deboeck@uzgent.be
Dr	Boeke	Joan	VUmc, Amsterdam	Ajp.boeke@vumc.nl
	Bruggeman	Shari	Studentenartsen, University of Gent, Belgium	Bruggeman_shari@hotmail.com
Ing	Catsburg	Arnold	VUmc, Amsterdam	A.Catsburg@vumc.nl
Dr	Crusius	Bart	VUmc, Amsterdam	b.crusius@vumc.nl
Prof.	Domeika	Marius	Dept. of Medical Sciences, Uppsala University, On behalf of the Sexual Reproductive Health and Rights Network Group, Uppsala, Sweden	marius.domeika@medsci.uu.se
Dr	Dreesbach	Karen	Medac	k.dreesbach@medac.de
Dr	Duim	Birgitta	AMC, Amsterdam	B.Duim@amc.uva.nl
	Ehleiter	Yvonne	BioMedical Diagnostics	
Dr	Fennema	Han	STI Outpatient Clinic, Cluster of Infectious Diseases, Municipal Health Service, Amsterdam	hfennema@ggd.amsterdam.nl
Dr.	Götz	Hannelore	GGD Rotterdam	gotzh@ggd.rotterdam.nl
Ing	Groot	Dion	AMC, Amsterdam	D.Groot@amc.uva.nl
Drs	Hartog, den	Janneke	azM, Maastricht	je_denhartog@hotmail.com
Ing	Heijmans	Roel	VUmc, Amsterdam	r.heijmans@vumc.nl
	Kamp	Barbara	Roche	barbara.kamp@roche.com
Drs	Karimi	Ouafae	VUmc, Amsterdam	a.karimi@zonnet.nl
Dr.	Klein	Karen	Studentenartsen, University of Gent, Belgium	
Drs.	Kolader	Marion	STI Outpatient Clinic, Municipal Health Service, Amsterdam	mkolader@ggd.amsterdam.nl
Dr	Laine	Marja	VUmc, Amsterdam	ml.laine@vumc.nl
Prof.	Land	Jolande	Research Institute Growth and Development (GROW), azM, and Maastricht University, Maastricht & UMC Groningen, Groningen, The Netherlands	j.a.land@og.umcg.nl
Ing	Langerak	Ankie	AMC, Amsterdam	a.a.langerak@amc.uva.nl
Dr	Lyons	Joseph	City of Hope and Beckman Research Institute, Duarte, CA, USA	jlyons@coh.org
	Mooi	Gerrit	Goffin Meyvis Analytical & Medical Systems	gmooi@goffinmeyvis.com
Dr	Morré	Servaas	VUmc, Amsterdam	samorretravel@yahoo.co.uk
Drs	Nooteboom	Sanne	General practitioner	S_nooteboom@hotmail.com
Dr	Ossewaarde	Tjaco	MCRZ	ossewaardej@mcrz.nl
				Jm.ossewaarde@hccnet.nl
Dr	Ouburg	Sander	VUmc, Amsterdam	s.ouburg@vumc.nl
Dr	Pannekoek	Yvonne	AMC, Amsterdam	y.pannekoek@amc.uva.nl
Prof	Peña	Salvador	VUmc, Amsterdam	Pena.as@gmail.com

Title	Last name	Surname	Affiliation	E-mail
	Pieksma	Frank	Roche	Frank.pieksma@roche.com
Ing	Pleijster	Jolein	VUmc, Amsterdam	j.pleijster@vumc.nl
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Announcement



4th

Annual Minisymposium

on

***Chlamydia* Infections**

Thursday December 13, 2007



*Organiser: Servaas Morré
Laboratory of Immunogenetics,
Dept. of Pathology, VUmc, Amsterdam*

We hope to welcome you all in 2007

Future Meetings

17th ISSTDR / 10th IUSTI,

*July 29th – August 1st, 2007, Seattle, Washington, USA,
www.isstdr.org, www.iusti.org*

CBRS

*March 23rd – 26th, 2007, Louisville, Kentucky, USA
www.uams.edu/cbrs/*

International Meeting on "*Chlamydia* and *Mycoplasma* Infections in humans"

*April 18th – 20th, 2007, Ferrara, Italy
<http://mycoplasmas.cvm.iastate.edu/IOM/ferrara.html>*

23rd Conference of IUSTI – Europe

*October 11th – 14th, 2007, Dubrovnik, Croatia
www.iusti.org*

4th Annual Minisymposium on *Chlamydia* Infections

December 13th, 2007, Amsterdam, The Netherlands

5th German *Chlamydia* Workshop

*March 7th – 9th, Hannover, Germany
<http://131.130.66.201/dcw/2007/>*

15th IUSTI – Asia-Pacific Congress

*February 3rd – 6th, 2008, Dubai, UAE
www.iusti.ae*

6th European *Chlamydia trachomatis* meeting

July 1st – 4th, 2008, Aarhus, Denmark

18th ISSTDR / BASHH Meeting

*June 28th – July 1st, 2009, London, UK
www.isstdr.org*

IUSTI – AFRICA Regional Meeting

*Early December 2009, Cape Town, South Africa
www.iusti.org/africameeting.html*

12th International Symposium on Human *Chlamydia* Infections

2010



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Assistant symposium coordinator

Lay out & design, odd jobs:

Sander Ouburg

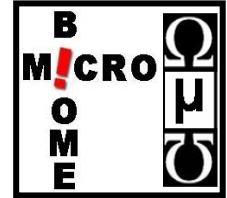
Laboratory of Immunogenetics, Dept. of Pathology
VUmc, Amsterdam

This symposium is accredited with 3 points from the Dutch Society for Medical Microbiology (NVMM)





Diagnostics



medac

VU university medical center

