



Co van Ledden Hulsebosch Center

ANNUAL REPORT 2018 ▶



Amsterdam UMC
(AUMC),
location AMC



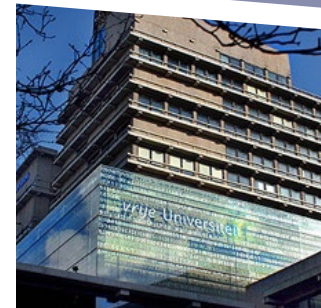
University of Amsterdam
- Faculty of Science
(FNWI)



Netherlands
Forensic Institute
(NFI)



Amsterdam University
of Applied Sciences
(HvA)



University Amsterdam
- Faculty of Science
(VU)



Delft University - Faculty of
Mechanical, Maritime and
Materials Engineering (3mE)



Avans University of
Applied Sciences
(Avans)



Introduction

Organization

Research

Education

PR, Communication and
International Network

Financial

Institute Achievements
and Highlights

Interviews

INTRODUCTION

Maurice Aalders and Arian van Asten

with contributions of Rick van Rijn, Roelof-Jan Oostra, Udo Reijnders, Peter Schoenmakers, Ate Kloosterman, Pernette Verschure, Zeno Geradts, Jaap van Ginkel, Marjan Sjerps, Bert van Es, Eva de Rijke, Hans Breeuwers, Daniel Bonn, Lisette Kootker, Gareth Davies, Christianne de Poot, Arjo Loeve and Ben de Rooij.

In 2018 the CLHC officially welcomed two new partners to its forensic academic network. The Vrije Universiteit Amsterdam joined as a primary partner thereby formalizing the already existing informal connection in the areas of isotope research (Gareth Davies group), DNA mathematics and statistics (Ronald Meester

group), analytical chemistry (Govert Somsen group) and criminal law (Christianne de Poot). Additionally, Avans University of Applied Sciences in Breda joined as a secondary partner, thereby becoming the 2nd official network partner outside of Amsterdam. Avans is one of four Universities of Applied Sciences in the Netherlands



offering a forensic curriculum to its students and also conducts forensic scientific research in the field of life science and toxicology. This 2018 annual report features two mini interviews with coordinators from the new partners, describing their forensic passion and the activities and plans for the future within their institutes. The expanding network fits with the ambition of the CLHC to develop into a trademark for forensic science in the Netherlands. The goal is to represent such a broad base in the Netherlands that the CLHC can be named the Netherlands instead of the Amsterdam Center for Forensic Science and Medicine. To achieve this,

discussions and formalisation of collaborations with several Dutch universities are still required (Maastricht, Rotterdam, Leiden, Twente). The annual CLHC conference organized on the 26th of October 2018 was themed 'Going Dutch' and featured mainly speakers from the new partners.

In this annual CLHC report the 2018 results are not only listed and analyzed in terms of quality and quantity but are also categorized according to a number of key activity areas for the CLHC. These areas are visualized by the following icons:

Scientific Impact



Funding



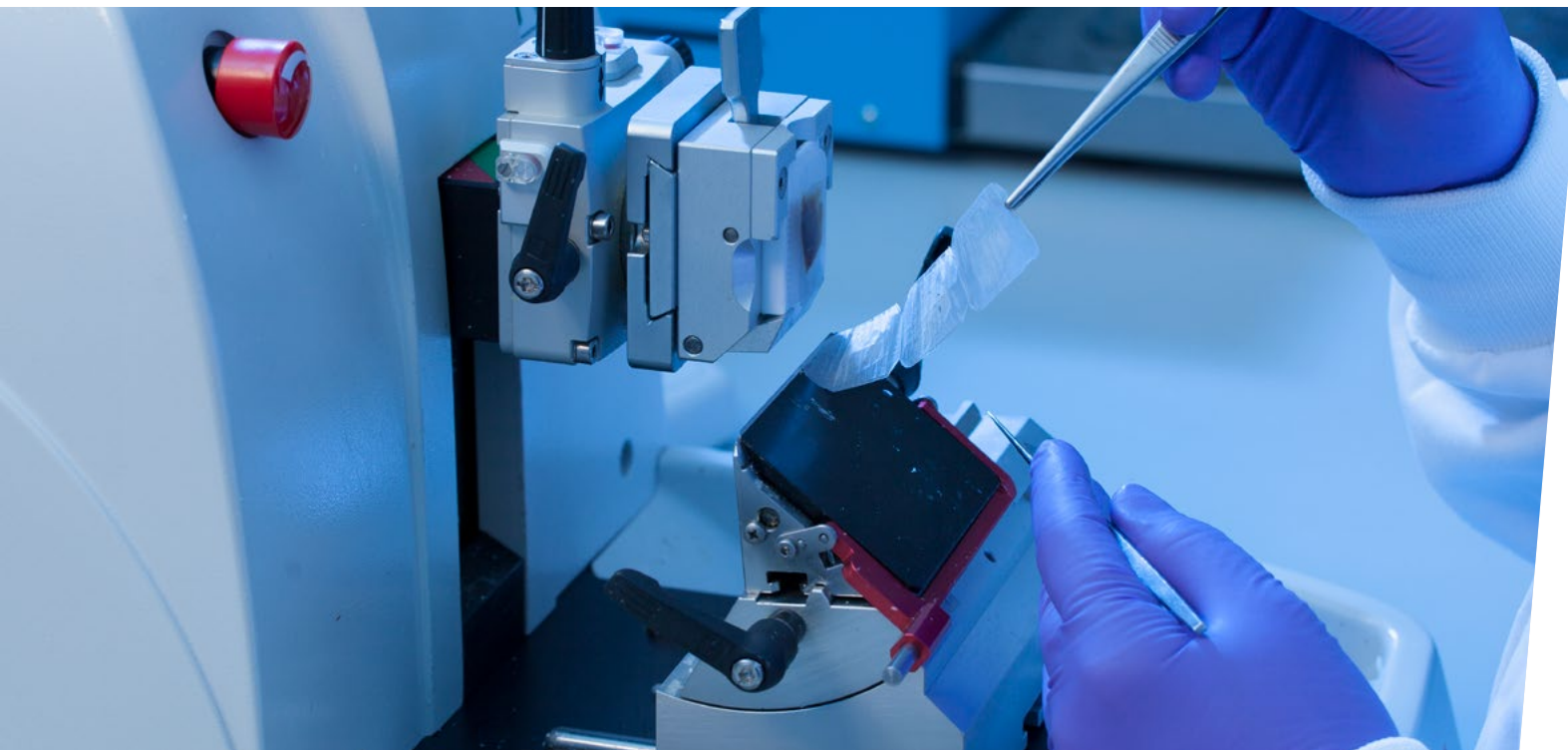
International Network



Education



Society



Introduction

Organization

Research

Education

**PR, Communication and
International Network**

Financial

**Institute Achievements
and Highlights**

Interviews



Introduction

Organization

Research

Education

PR, Communication and
International Network

Financial

Institute Achievements
and Highlights

Interviews

ORGANIZATION

Currently the network contacts within CLHC organization are well established and the following AUMC, UvA, VU, HvA, TU Delft and NFI colleagues played an important role in the center in 2018:

Dean FNWI: Peter van Tienderen
Chair and dean AUMC: Hans Romijn

Director Science and Technology NFI: Annemieke de Vries
Board chair - AUMC: Ton van Leeuwen,
Jaap Stoker

Board chair - FNWI: Peter Schoenmakers,
Eric Opdam

Board member - NFI: Annemieke de Vries

Board member - HvA: Esther Ras

Board member - VU: Gareth Davies

CLHC director - AUMC: Maurice Aalders

CLHC director - FNWI: Arian van Asten

**Education coordinator
FNWI (MFS program):**

Education coordinator - AUMC:

Bureau support FNWI:

Bureau support AUMC:

Coordination BMEPh:

Coordination Radiology - AUMC:

**Coordination Anatomy,
Anthropology, Archeology:**

Arian van Asten,
Yorike Hartman
Rick van Rijn,
Roelof Jan Oostra
Eric Sennema
Gepke Uiterdijk
Maurice Aalders
Rick van Rijn

Roelof-Jan Oostra,
Hans de Boer



**Coordination Forensic
Medicine - AUMC/GGD:**

Udo Reijnders

Coordination HIMS - FNWI:

Arian van Asten
(Peter Schoenmakers)

Coordination IBED - FNWI:

Eva de Rijke,
Hans Breeuwiers

Coordination IoP - FNWI:

Daniel Bonn

Coordination Ivl - FNWI:

Jaap van Ginkel,
Zeno Geradts

Coordination KdVI - FNWI:

Bert van Es,
Marjan Sjerps

Coordination SILS - FNWI:

Pernette Verschure,
Ate Kloosterman

Coordination HVA:

Christianne de Poot

Coordination TU Delft - 3mE:

Arjo Loeve

Coordination VU - Science:

Lisette Kootker
Klaas Slooten
(Ronald Meester),
Rob Haselberg
(Govert Somsen)

Introduction

Organization

Research

Education

PR, Communication and
International Network

Financial

Institute Achievements
and Highlights

Interviews



CLHC ANNUAL REPORT 2018

Would you like to share this publication?

You can do so by clicking on one of the following links:

► [Share on Twitter](#)



► [Share on Facebook](#)



► [Share on LinkedIn](#)



[Introduction](#)[Organization](#)[Research](#)[Education](#)[PR, Communication and International Network](#)[Financial](#)[Institute Achievements and Highlights](#)[Interviews](#)

RESEARCH

Institute	Granted Projects	Ongoing Projects	PhDs/ Postdocs	PhD dissertations	Scientific publications*	Scientific presentations**
BMEPh - AUMC	1	6	6/2	0	9	8
RAD - AUMC	0	5	5/0	1	10	3
AAA - AUMC	0	5	5/0	0	8	4
FMED - AUMC	0	1	1/0	2	5	6
HIMS	1	2	3/0	0	3	13
IBED	2	7	5/0	2	0	1
IoP	0	1	1/0	0	0	3
IvI	0	4	4/0	0	10	9
KdVI	1	0	0/1	0	3	3
SILS	0	3	0/1	0	6	1
VU - Earth	0	2	2/0	1	2	7
HvA	2	5	4/0	1	10	19
3mE - TUD	1	2	0/0	0	2	2
Avans	1	0	0	0	0	1
Total***	9	43	35/4	7	68	79

Forensic science and forensic science related activities within the CLHC institutes in 2018

* Publications that appeared in a printed volume in 2018 (i.e. full reference available) in peer-reviewed scientific journals (including books and book chapters with ISBN numbers).

** Scientific key note, invited speaker or accepted abstract presentations in official symposia and conferences (excluding workshops and internal UvA and partner events) in 2018.

*** The total can be less than the sum of the institute numbers due to collaborations between CLHC institutes.



Special Chairs

The appointment of special chairs is of key importance to develop forensic science areas within the CLHC and to connect forensic practice, science and education. These chairs merge the forensic and academic world and the appointed professors form research focal points from which new initiatives and collaborations can be undertaken and proposals can be submitted. The forensic professors within the CLHC are encouraged to establish interdisciplinary collaborations with the academic partners both in Amsterdam, the Netherlands and abroad. For 2018 the following developments can be reported:

■ Valedictory Speech of prof. dr. Ate Kloosterman:

On May 17th a special Frontiers of Forensic Science session was held at the Aula of the University of Amsterdam in honour of prof. dr. Ate Kloosterman, Dutch forensic DNA pioneer and involved in many high profile cases as a forensic DNA expert. Several international speakers presented during this event and paid tribute to his impressive career in forensic science. After the session Ate Kloosterman delivered his valedictory speech as he officially retired from the Netherlands Forensic Institute in 2017. For his extremely valuable contribution to forensic science and the Dutch criminal justice system he was awarded a high royal commendation. The mayor of Leiden, Ate's hometown, surprised him by taking the stage directly after the speech and handing out the commendation.



Prof. dr. Ate Kloosterman, Dutch Forensic DNA pioneer, receiving the royal commendation 'Ridder in de Orde van de Nederlandse Leeuw' from Leiden mayor Henri Lenferink directly after giving his valedictory speech (May 17th, 2018).

■ Appointment of prof. dr. Arian van Asten:

On September 1st prof. Arian van Asten was appointed full professor on a new chair entitled Forensic Analytical Chemistry and On-Scene Chemical Analysis at the van 't Hoff Institute for Molecular Sciences at the Science Faculty of the University of Amsterdam. The chair is sponsored by the Netherlands Forensic Institute. Before he transferred to the UvA, prof. van Asten was appointed on a special chair on Forensic Analytical Chemistry for a period of six years (2012-2018) as an NFI employee. As part of the transfer prof. van Asten was also installed as the new director of the forensic MSc program at the Institute for Interdisciplinary Studies.

Introduction

Organization

Research

Education

PR, Communication and
International Network

Financial

Institute Achievements
and Highlights

Interviews



In total 9 special chairs in forensic science were active within the CLHC network in 2018:

- Forensic Biology @ IBED/FNWI, prof. dr. Ate Kloosterman (NFI), 2008-2018 (retirement)
- Forensic Statistics @ KdVI/FNWI, prof. dr. Marjan Sjerps (NFI), 2010-2020 (2nd term)
- Forensic Analytical Chemistry @ HIMS/FNWI, prof. dr. Arian van Asten (NFI), 2012-2018 (2nd term)
- Forensic Biophysics @ BMEF/AUMC, prof. dr. Maurice Aalders (AUMC), 2012-2022 (2nd term)
- Forensic Radiology @ AUMC, prof. dr. Rick van Rijn (AUMC), 2014-2019 (1st term)
- Forensic Data Science @ lvi/FNWI, prof. dr. Zeno Geradts (NFI), 2014-2019 (1st term)
- Forensic Medicine @ AUMC, prof. dr. Udo Reijnders (GGD), 2015-2020 (1st term)
- Mathematics for Forensic Genetics @ Science/VU prof. dr. Klaas Slooten (NFI), 2015-2020 (1st term)
- Criminalistics @ Law/VU, prof. dr. Christianne de Poot (WODC/HvA/PA), 2016-2021 (1st term)

In 2019 the succession of prof. dr. Ate Kloosterman will be realized through a new special chair in human forensic biology at the Swammerdam Institute for Life Sciences (SILS). A suitable candidate for the chair will be selected from interested senior scientists/forensic experts of the Division of Biological Traces of the Netherlands Forensic Institute. In the near future new options for special chairs with the academic partners will be considered.

PhD Theses

The main instrument for forensic scientific studies within the CLHC is the PhD project as this not only yields output in the form of scientific publications but also leads to a new generation of experienced and talented scientists for the criminal justice system. In 2018, in total 7 PhD students successfully defended their forensic thesis (since the start of the CLHC in 2013 in total 26 students obtained a PhD degree in forensic science):

- **Rian Teeuw** – The shERlock Study
AUMC – January 17th, 2018
– Promotor: prof. Rick van Rijn
- **Frederike Quaak** – Microbial populations and their potential in forensic investigations
NFI/IBED – April 26th, 2018
– Promotores: prof. dr. Ate Kloosterman, dr. Irene Kuiper
- **Monique Wesselink** – DNA Markers for Forensic Identification of Non-Human Biological Traces
NFI/IBED – April 26th, 2018
– Promotores: prof. dr. Ate Kloosterman, dr. Irene Kuiper
- **Ana Causanilles** – Wastewater-based epidemiology, an analytical chemical approach for the investigation of human consumption of life style chemicals
IBED/KWR – May 24th, 2018
– Promotores: prof. Pim de Voogt
- **Claire van den Eeden** – Processing Crime Scenes, Psychological influences on forensic inferences
VU/Police Academy – May 28th, 2018
– Promotores: prof. Peter van Coppen, prof. Christianne de Poot

Introduction

Organization

Research

Education

PR, Communication and International Network

Financial

Institute Achievements and Highlights

Interviews



Front covers of the 2018 PhD theses of Rian Teeuw (AUMC), Frederike Quaak (NFI, IBED), Monique Wesselink (NFI, IBED), Ana Causanilles (IBID/KWR), Claire van den Eeden (VU/PA), Thekla Vrolijk-Bosschaart (AUMC) and Guido Reijnen (AUMC/GGD)

- **Thekla Vrolijk-Bosschaart** – Recognizing child sexual abuse: an unrelenting challenge
AUMC – October 11th, 2018
– Promotores: prof. Benninga, prof. Lindauer
- **Guido Reijnen** – Drowning and pulmonary foam, a challenge in forensic medicine
AUMC/GGD – Dec 18th, 2018
– Promotores: prof. Reijnders, dr. Vos, Dr Buster

Annual symposium

In 2018 the 5th edition of the annual CLHC symposium was organized on the 26th of October at 904 Science Park. The theme for this edition was “Going Dutch” to illustrate the ambition of the CLHC to welcome new partners outside Amsterdam and to naturally develop into the Netherlands Center for Forensic Science and Medicine. This edition of the symposium was the best attended since the start in 2014 with over 170 participants including MFS students, PhD students, scientists, forensic experts and partners from the criminal justice system.

The plenary session was opened by prof. Ton van Leeuwen (AUMC) and dr Annemieke de Vries (NFI) on behalf of the CLHC board. Plenary presentations were given by Wilma Duijst (Maastricht/NFI/ZM), Annemieke van Dam (AUMC), Erwin Mattijssen (Nijmegen/NFI), Brigitte Bruijns (Twente University), Elmarie van Straalen (HvA/Dutch Police), Remi Wieten (Utrecht), Ana Pego (Avans Breda), Mike Groen (NFI/Leiden) and Arjo Loeve (Delft). Several speakers were invited to present their forensic scientific work at various universities in the Netherlands in line with the symposium theme.

A jury with members from the various partners in the criminal justice system selected the following winner for the “Best PhD Poster Award”:

- Leah Wilk – Amsterdam UMC, location AUMC (Amsterdam): *Automating numerical post-mortem interval estimation: combining CT, Thermal Imaging, Photogrammetry*

Introduction

Organization

Research

Education

PR, Communication and International Network

Financial

Institute Achievements and Highlights

Interviews



Best PhD Poster award winner Leah Wilk from AUMC and Co van Ledden Hulsebosch junior (grandson with the same name as the famous Dutch forensic pioneer) congratulating the Best Student Poster award winners (CWI Science Park - 26/10/2018)

The “Best Student Poster Award” was selected by a committee consisting of CLHC PhD students. Various student teams presented their results from the course Advanced Forensic Biology at the symposium. The winners were:

- Dide Boelens, Shirin Alex and Katrin Niedermaier:
Time of Deposition of Forensic Traces, Using mRNA and miRNA biomarkers

During a very lively lunch session, “Co’s table” with forensic memorabilia from his grandfather attracted a lot of attention. Participants could guess the use of a special forensic instrument that was designed and used by Co van Ledden Hulsebosch to solve crime over 100 years ago. This instrument, which is in the possession of the Amsterdam Police, was actually used to investigate faeces left on the crime scene by burglars.



Impression of the lunch program of the annual CLHC symposium

Introduction

Organization

Research

Education

PR, Communication and
International Network

Financial

Institute Achievements
and Highlights

Interviews



Introduction

Organization

Research

Education

PR, Communication and
International Network

Financial

Institute Achievements
and Highlights

Interviews

The CLHC actively supports the Master's in Forensic Science (MFS) program of the Institute for Interdisciplinary Studies (IIS). The coordinators of the program discuss education matters with the CLHC directors and participate in the CLHC coordinator meetings.

The CLHC website is used by the students to find topics and contacts for literature theses and research projects (<http://www.clhc.nl/education>). These topics are provided by the institutional CLHC coordinators and the CLHC network. In the academic year 2018-2019 the literature thesis in the 2nd year of the Forensic Science master was coordinated by the CLHC (course coordinator: prof. dr. Arian van Asten).

Additionally, the CLHC wants to provide opportunities for talented students in the program to continue their

career in forensic science through PhD projects that emerge from the CLHC activities.

Annual symposium

MFS Students participating in the course Advanced Forensic Biology coordinated by SILS and IBED (Pernette Verschure, Martijs Jonker, Ate Kloosterman) presented their forensic biological research proposals at the 2018 annual CLHC symposium to compete for the best student poster award.



Frontiers of Forensic Science sessions

Forensic Science students attend the jointly organized Frontiers of Forensic Science (FFS) sessions as part of their curriculum. The academic lecture series is therefore part of the MFS program but open to scientists, forensic experts and all with a forensic interest. For each session a specific theme is selected for which established scientists, forensic practitioners and new scientific talent are invited to present their latest work. Each academic year the CLHC financially supports invited lectures by renowned forensic scientists from abroad and the organization of an FFS session outside Science Park. The CLHC maintains an extensive contact list from the science, forensic and criminal justice communities in the Netherlands and each FFS session is announced on the CLHC website, through an email to registered contacts



and via several social media channels. For each session a special, high quality poster announcement is prepared and distributed. Consequently, attendance is high and diverse and this provides excellent opportunities for the students to meet forensic and scientific experts, police officers and legal professionals. In 2018 in total four sessions were organized (two in the academic year 2017-2018 and two in the academic year 2018-2019). An increase in attendance was noticed with 100+ participants in the 2018 sessions:

- **Firearms & Toolmarks** – March 9th, 2018 – UvA Science Park
Speakers: Martin Baiker-Sørensen (NFI), Erwin Mattijssen (NFI), Paul Hofman (Maastricht UMC+)
- **Forensic DNA Science – From Current to Next Generation** – May 17th, 2018 – UvA Aula
Special symposium in honor of prof. dr. Ate Kloosterman
Session Chair: Cees Corvinus
Speakers: Peter Gill (Norway), Manfred Kayser (Rotterdam), Peter de Knijff (Leiden), Anna Mapes (Dutch Police, HvA), Bas Kokshoorn (NFI), Diederik Aben (Dutch Court), Marjan Sjerps (NFI, UvA)
- **Responsible research and innovation in Forensic Science** – September 28th, 2018 – UvA Science Park
Speakers: Eugen Pope (Wageningen), Paul Iske (Maastricht), Nick Koeman (Dutch Police)
- **Searching the truth with Artificial Intelligence** – November 16th, 2018 – HvA
Session Chair: Anneke Koster (HvA)
Speakers: Sonja Bitzer (Leuven), Linda Schreuders (Dutch Police), Douwe Molenaar (VU), Chantal Epskamp-Dudink (Dutch Police), Jasper van der Kemp (VU)

Introduction

Organization

Research

Education

PR, Communication and International Network

Financial

Institute Achievements and Highlights

Interviews



Poster announcements of the FFS sessions organized by the IIS and CLHC in 2018

Teaching

The mission of the IIS Master's program in Forensic Science (MFS) is to train scientists to have a broad forensic insight and who can answer forensic questions from a sound basis in a scientific discipline, who can stimulate innovations in forensic science, and who can evaluate and strengthen the role of forensic evidence in the criminal justice system. In order for the MFS mission to succeed, forensic expert input from the institutes and scientists linked to the CLHC is very important. In the academic years 2017-2018 and 2018-2019 many CLHC associated teachers (often CLHC coordinators, scientists and professors) were involved in the Forensic Master curriculum. The collaboration of the CLHC and the MFS thus ensures the incorporation of recent scientific developments and cutting-edge research into the

master. Furthermore, in several courses guest contributions are provided by NFI experts giving the students insights in the role of forensic science in the criminal justice system and the practical considerations of forensic case work.

Research Projects

The CLHC institutes also play an important role in providing interesting and challenging research project assignments for the Forensic Science master students during their 2nd year of the master. Of all literature theses and research projects over 57% was offered and supervised by CLHC partner institutes. In this respect the involvement of the forensic PhD students in the CLHC network as supervisors of the students is very important.

Introduction

Organization

Research

Education

PR, Communication and International Network

Financial

Institute Achievements and Highlights

Interviews



Institute	CLHC coordinator/scientist	Course in de Forensic Science Master	Contribution	Year
BMEPh - AUMC	Prof. dr. Maurice Aalders	Research and Innovation in Forensic Science	Coordinator & Teacher	1
RAD - AUMC	Prof. dr. Rick van Rijn	Physical and Forensic Anthropology	Guest lecture	1
AAA - AUMC	Prof. dr. Roelof-Jan Oostra	Physical and Forensic Anthropology	Coordinator	1
HIMS	Prof. dr. Arian van Asten	Literature Thesis	Coordinator	2
	Prof. dr. ir. Peter Schoenmakers	Criminalistics and Analytical Chemistry	Guest lecture	1
	Prof. dr. ir. Peter Schoenmakers	Criminalistics and Analytical Chemistry Chemical Analysis for Forensic Evidence	Guest lecture Coordinator & Teacher	1 2
IBED	Prof. dr. Ate Kloosterman	Forensic Statistics and DNA Evidence	Teacher	1
		Advanced Forensic Biology	Coordinator & Teacher	2
IvI	Prof. dr. Zeno Geradts	Complex Crime Scenes	Teacher	1
KdVI	Prof. dr. Marjan Sjerps	Forensic Statistics and DNA Evidence	Teacher	1
	Dr. Bert van Es	Forensic Statistics and DNA Evidence	Coordinator & Teacher	1
SILS	Dr Pernette Verschure	Advanced Forensic Biology	Teacher	2

MFS course coordination and contribution from CLHC coordinators and scientists in 2018

Finally, it should be noted that a substantial forensic education effort is also undertaken for Bachelor and Master students in other areas than forensic science. Frequently, students outside the MFS conduct forensic literature studies and research projects offered by the CLHC. Institute details on education can be found in the Institute Annex to this annual report.

MFS students attending and presenting at EAFS 2018

From August 29-31 the EAFS 2018 was hosted by the French Police in Lyon. This main conference on forensic science in Europe is organized once every 3 years. Financial support from the CLHC allowed students who just finished their research project to attend the conference and present their work. In total 5 students attended and prepared and presented E-posters, a valuable experience for these talented young scientists.



MFS students attending the EAFS 2018 conference in Lyon and presenting their research projects

Introduction

Organization

Research

EducationPR, Communication and
International Network

Financial

Institute Achievements
and Highlights

Interviews



Introduction

Organization

Research

Education

**PR, Communication and
International Network**

Financial

Institute Achievements
and Highlights

Interviews



PR, COMMUNICATION AND INTERNATIONAL NETWORK

Forensic science and criminal investigations can count on interest of the general public and the media. Hence, a successful forensic science program within the University of Amsterdam can also be used to get society involved and interested in science as part of the outreach activities of the university.

This in turn can attract new scientific talent to the UvA. As the CLHC represents and coordinates the forensic science efforts, the center is expected to create several outreach opportunities each year to promote science and interact with the general public. This includes forensic science presentations for a broad audience, articles in newspapers and popular scientific magazines and contributions on the Internet, radio and television. In 2018 forensic research within the CLHC and associated institutes featured in national media on several

occasions. In the institute annex to the annual report all PR/Communication activities are listed including radio and TV interviews, press releases and popular scientific articles and presentations. The annex can be made available upon request. The valedictory speech of prof. dr. Ate Kloosterman attracted quite some media attention leading to newspaper and radio interviews in which prof. dr. Kloosterman provided an overview of his forensic career and the rise of forensic genetics as a powerful tool to solve crime in the Netherlands.



Ate Kloosterman being interviewed in BNR News Radio (16-07-2018)



Maurice Aalders presenting at the King's Forensics symposium (04-09-2018)

International network

In 2018 the CLHC maintained its international network and the center was represented by several scientists who presented their research at the AAFS 2018 (Seattle, USA), EAFFS 2018 (Lyon France) and ANZFFS 2018 (Perth, Australia) international forensic science conferences. Prof. Zeno Geradts (Digital Forensics at NFI and UvA's Informatics Institute) is member of the scientific board of the AAFS conference and is scheduled to become the first ever AAFS president outside the USA in 2020. It remains the ambition of the CLHC to further develop the international network through institute collaborations and to be a trademark of forensic science in the Netherlands by contributing to international forensic science symposia and meetings. In 2018 contacts with King's College London (KCL) intensified as options for collaboration in forensic science and education were explored. The CLHC directors featured as invited speakers in a special symposium in London to celebrate the start of 'King's Forensics'.

In 2019 both the UvA and KCL hope to formalize the forensic collaboration between both universities. Finally, the CLHC will continue to pursue future options to organize and host a major international forensic science conference in Amsterdam.

The CLHC website

An important tool for internal and external communication is the CLHC website (www.clhc.nl). The CLHC web coordinator (Ineke Weijer) ensures that the site is a dynamic platform which provides the latest forensic scientific information from the national and international community. Information on special chairs in forensic science, key publications and forensic PhD theses is made available in the **'Research'** section. Historic documents on the work and life of Co van Ledden Hulsebosch are digitized and made available with the help of the grandson of the forensic pioneer who was named after his famous grandfather. These historic documents can be found in the section **'History'**.

Introduction

Organization

Research

Education

PR, Communication and International Network

Financial

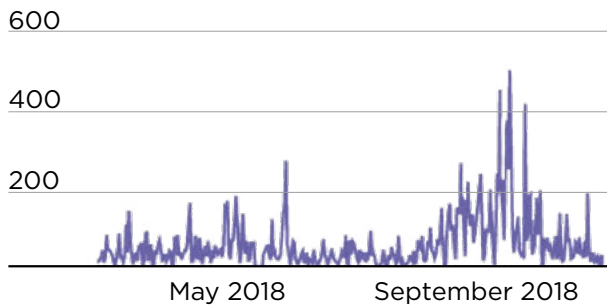
Institute Achievements and Highlights

Interviews

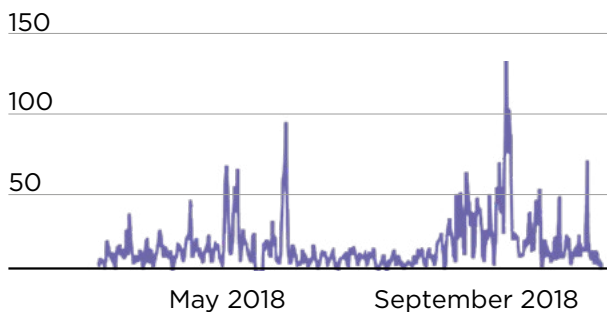


Students can use the website to find suitable projects and thesis subjects in the **'Education'** area which is constantly updated with new projects and topics. The **'Partners'** page lists information of national partners and fellow academic centres in forensic science around the globe. In the **'Organisation'** section past annual reports and the CLHC flyer can be found and downloaded. The figure below shows the amount of page views in 2018,

Page Views



Sessions



the amount of sessions and the country from which the (inter)national viewers viewed the site. The 'Co van Ledden Hulsebosch Center' Facebook page features news and events which reach 200-100 visitors per message. A 2018 highlight was the Facebook post about the first burial at the AUMC taphonomic test site with over 1800 views.

Page Views by Country

Country	Page Views
Netherlands	16,866
United States	898
United Kingdom	489
India	372
Germany	260
Spain	214
Belgium	171
China	161
Australië	90
Nigeria	90

Introduction

Organization

Research

Education

PR, Communication and International Network

Financial

Institute Achievements and Highlights

Interviews



Introduction

Organization

Research

Education

PR, Communication and
International Network

Financial

Institute Achievements
and Highlights

Interviews



FINANCIAL

The CLHC holds a limited budget for its activities. Every year all associated FNWI institutes, the AUMC and primary partners HvA and VU provide a small financial contribution (1500 or 2500 euro) which makes up the annual CLHC budget (26 keuro).

The CLHC expenses are relatively small because of the virtual nature of the institute and minimal (mostly in-kind) overhead involved. It should be noted that the CLHC does not fund research projects nor is directly responsible for such projects. This responsibility sits with the institutes and principal investigators who conduct the research and submit proposals to acquire funding. The CLHC budget is used to create opportunities in terms of forensic research and education, forensic meetings, symposia and network and outreach activities. In this way the CLHC raises general interest and awareness, creates opportunities for forensic collaboration and new projects and represents forensic science in the Netherlands both nationally and internationally. The CLHC directors discuss progress and “return on investment” on a

regular basis with the institute directors and the CLHC board. Throughout the year, expenses of the center are continuously balanced against the budget to maintain a slightly positive net balance.

In 2018 most expenses were associated with the annual CLHC symposium that was organized at the end of October at Science Park. No special, unexpected investments were required and overall expenditure was 1.5 keuro less than the received partner contributions. With a balance of approximately 5 keuro at the beginning of the year, the CLHC budget at the end of 2018 was just over 6 keuro. All financial details are given in the financial annual report of the center that can be made available on request. All annual financial reports of the CLHC are approved by the CLHC board.



INSTITUTE ACHIEVEMENTS AND HIGHLIGHTS

In the institute annex all significant forensic achievements in 2018 are listed for every institute and the associated scientists. Below a selection of highlights are given.

CLHC 2018 highlights from the Institute Annex:



- Leah Wilk (AUMC) won the Best Poster Award at the prestigious Gordon Research Seminar on Lasers and Medicine in Biology 2018 and at the CLHC Annual Symposium 2018.
- FNWI, IBED got three 'wastewater' proposals granted. One of these aims to develop a Smart sewer; a smart detection system for detection of drug waste dumps in sewers.
- HIMS initiated a collaboration with the Police to develop novel approaches for the chemical analysis of drugs of abuse in a high volume case work laboratory.



- Zeno Geradts (FNWI/NFI) is installed as the (first European) President of the American Academy of Forensic Sciences.
- Marian Sjerps (FNWI/NFI) is a Member of the Technical Advisory Board of the US Center for Statistics and Applications in Forensic Evidence (CSAFE) in which more than 60 researchers and national practitioners from across four universities and numerous research institutes work together to build strong scientific foundations that enhance forensic science and technology practices.



- Annemieke van Dam (AUMC) received a NWO 'demonstrator grant' to bring a new tool to obtain valuable forensic information from fingerprints into forensic practice.

Introduction

Organization

Research

Education

PR, Communication and International Network

Financial

Institute Achievements and Highlights

Interviews

- Rianne Teeuw (AUMC) started the shERlock study; Signals in the hospital Emergency Room which aims to link objective signs to child abuse knowledge (shERlock Study).



- LM Kootker (VU) won the W.A. van Es-Prijs 2018. This is a dissertation award that is assigned once every 2 years to the best archaeological dissertation in the Netherlands.
- In november, the AUMC hosted the Lustrum Symposium of the NVFA (Dutch Society for Physical Anthropology) which was combined with the grand opening of the Amsterdam Research Initiative for Sub-surface Taphonomy and Anthropology (ARISTA).



- A TV documentary was made on the first taphonomic burial at ARISTA in March 2018
- AUMC/GGD prof. Udo Reijners was part of the 'taskforce' Lijkschouw en de gerechtelijke sectie' assigned by The Ministry of Justice and Security.



Introduction

Organization

Research

Education

PR, Communication and
International Network

Financial

**Institute Achievements
and Highlights**

Interviews



Introduction

Organization

Research

Education

PR, Communication and
International Network

Financial

Institute Achievements
and Highlights

Interviews

INTERVIEWS

Mini interview with new VU coordinator
dr. Rob Haselberg



Name: **Rob Haselberg**
Position: **Associate professor**
Faculty/University: **VU**

What is your passion and ambition in forensic science and medicine?

I like puzzles; this is what got me in science to start with. There is a problem or question and you use what you've got to solve it. As an analytical chemist this normally relates around method development, but it is as easily translated in forensic research. The who-dun-it question. If I, with my analytical chemistry background, in some little way can contribute like that to the forensic field that would be amazing. Maybe a lower (or realistic) bar to set is to develop complementary methods or to reach a class of analytes that are challenging using the technologies that we have available in our laboratory.

What are the forensic activities at your institute?

Currently we are contributing to the Fexin and Pyroprof projects. In these projects the focus is (in part) on characterizing low molecular weight cations and anions in fireworks. We use our expertise in capillary



electrophoresis (amongst others) to add another technique to the characterization portfolio. We have, for example, been working on quantifying inorganic cations and anions from different flash and black powders to establish whether this can be used as a discrimination factor in terms of production origin, real vs. fake products, etc. Recently, we directed our attention to the clay plaques in the fireworks. Here we focus on ionic profiling for the same reasons as for the powders, with the difference that we now (often) have no clue what we actually see.

What new developments in forensic science and education can we expect from your institute?

Besides the already mentioned capillary electrophoresis, we also house a large facility of mass spectrometers. To be honest, our new ion mobility mass spectrometer might provide a lot of additional discriminatory power in complex samples. We haven't tried it yet for any forensic application, but for some of the small molecule work we do it adds a surprising new dimension to the dataset.

In your opinion, what are the benefits of being involved in the CLHC?

For me personally, it gives me a direct connection to the real-world problems that need to be solved. That is extremely motivating for me as a scientist. Moreover, the platform is so diverse that you are always assured of different views on a problem or have access to infrastructure that you do not have yourself. I also should not forget the students; having young motivated students involved in the work makes it a pleasure to work on our forensic problems.

What is your view on the CLHC ambition to become a Dutch platform for forensic science?

Over the years, the CLHC has shown to be a strong collective within the Amsterdam region. Many nice pieces of research have been jointly done and the contributions have been great. However, forensics is everywhere. So, I applaud the expansion of this platform. Working jointly on a national level can only lead to a stronger network, an unsurpassed infrastructure, and – ultimately – convincing power in forensic casework.

Introduction

Organization

Research

Education

PR, Communication and
International Network

Financial

Institute Achievements
and Highlights

Interviews

INTERVIEW



Introduction

Organization

Research

Education

PR, Communication and
International Network

Financial

Institute Achievements
and Highlights

Interviews

INTERVIEWS

Mini interview with new Avans coordinator
dr. Ben de Rooij



Name: **Ben de Rooij**
Position: **Senior lecturer and track coordinator**
Faculty/University: **Avans**
Since: **2008**

What is your passion and ambition in forensic science and medicine?

Forensic Science is a real good form to educate students in Chemistry and Biomedical Sciences. Examples are always attractive and it's easy to find actual and recent examples, just look at the newspapers! It's our ambition to build an excellent Bachelor of Science program in laboratory techniques for forensic science. We like to find our alumni in laboratories as the NFI and the new police laboratories.

What are the forensic activities at your institute?

Avans University of Applied Sciences has 2 Bachelor programs: Forensic Laboratory Sciences (FLO) and Forensic Chemical Science (FCO). In FLO a combination of Chemistry and Biology is made in year 1 and 2, while year 3 and 4 are focused on one of the two. This gives people the chance to become technicians specialized in DNA-analysis or in Analytical Chemistry, but with a



broader view. The FCO program has the focus on chemistry in forensic setting. Another activity is within the research group Analysis techniques in the Life Sciences. In this group we perform the SherLOK project. The goal of SherLOK is to find a profile of compounds in hair that is related to the lifestyle of the donor. We calculated that if we will be able to find 20 markers with each a frequency of 50%, in principle, we could distinguish 1 in 1.000.000 persons.

What new developments in forensic science and education can we expect from your institute?

On the education side the new developments are in data processing and big data. This theme is initiated by DAS (Domein Applied Science) and all Bachelor of Applied Science programs are building on this. The SherLOK project has a large contribution to this as well. For research the focus will be on the development of analytical methods in alternative matrices like saliva and hair. The relevance is not only in the forensic arena, but also in clinical diagnostics. We expect to publish a method for steroids in saliva within the next months.

In your opinion, what are the benefits of being involved in the CLHC?

The CLHC is an important initiative, it gives us the opportunity to be part of the forensic network in the Netherlands. We expect that this contributes to our education. On the other side, it is easier to find us and talk about placement students. We have seen the first results already.

What is your view on the CLHC ambition to become a Dutch platform for forensic science?

It is a great idea; we need a platform that makes the connection. Recently we have built a minor program with all the forensic educators in the Netherlands. That is a great success, and with the help of the CLHC network we can build on more mutual programs and initiatives.

Introduction

Organization

Research

Education

PR, Communication and International Network

Financial

Institute Achievements and Highlights

Interviews

INTERVIEW

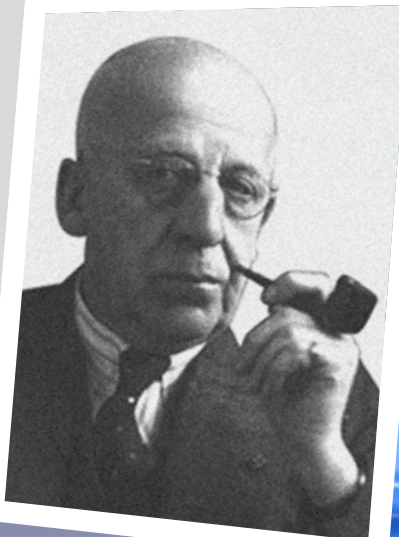
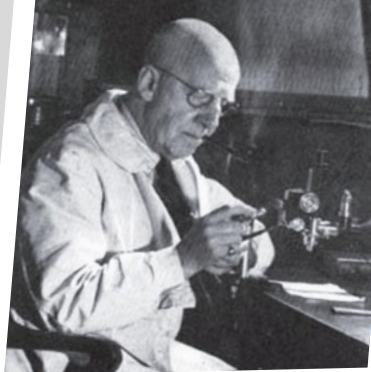


Colophon

Co van Ledden Hulsebosch Center
*Amsterdam Center for Forensic Science
and Medicine*

The forensic photos in this annual report are used with permission of the Netherlands Forensic Institute (source: NFI Beeldbank). The name of the institute and associated images are used with permission of the van Ledden Hulsebosch family.

Juni 2019



CLHC Address

Room C2.243
Science Park – Building 904
1098 XH Amsterdam
The Netherlands

Email

clhc-science@uva.nl

Phone

+31 20 - 525 76 56



www.clhc.nl