

Co van Ledden Hulsebosch Center ANNUAL REPORT 2020



Amsterdam UMC, location AMC



University of Amsterdam Faculty of Science (FNWI)



Netherlands Forensic Institute (NFI)



Amsterdam University of Applied Sciences (HvA)



VU University Amsterdam Faculty of Science and Earth and Life Sciences (VU)



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



Avans University of Applied **Sciences**



Maurice Aalders and Arian van Asten

with contributions of Rick van Rijn, Roelof-Jan Oostra, Lida van der Merwe, Udo Reijnders, Peter Schoenmakers, Ate Kloosterman, Pernette Verschure, Titia Sijen, Zeno Geradts, Jaap van Ginkel, Marjan Sjerps, Eva de Rijke, Hans Breeuwers, Daniel Bonn, Lisette Kootker, Gareth Davies, Christianne de Poot, Isabelle Kohler, Arjo Loeve, Ben de Rooij and Karlijn Bezemer



CLHC ANNUAL REPORT 2020

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The year 2020 was unprecedented on an organizational and individual level as the Corona outbreak developed into a global pandemic in the first months of the year. Prior to the outbreak, on January 23, the CLHC received the very sad news of the passing of Co van Ledden Hulsebosch junior, the grandson of the famous Dutch forensic pioneer and one of the most enthusiastic supporters and dear friend of our center. He will be dearly missed and an in-memoriam in his honour is included in this annual report. The 72nd annual meeting of the American Academy of Forensic Sciences (AAFS), held from 17 - 22 February in Anaheim (USA), became the final international forensic science conference to be organized on location and was attended by a large forensic scientific community. Luckily the CLHC and many Dutch forensic scientists were able to present their work at that meeting as it was chaired by prof. Zeno Geradts, the first 'foreign' president in the rich history of this conference. Shortly after the AAFS meeting, a

world-wide lockdown forced all forensic events to be cancelled, postponed or conducted on-line for the remainder of the year. International research teams and academic teachers had to rapidly acquaint themselves with ICT tools for on-line meetings and teaching. As always, the Dutch forensic community proved to be resourceful and adaptive; in a very short time the teachers of the Master Forensic Science program managed to offer all courses on-line and maintained the quality of the teaching by implementing new technology. As the Covid situation improved over the spring and summer period in the Netherlands, labs reopened, albeit with limited capacity, which allowed the research to continue. This also allowed the students to complete their internships with sufficient hands-on research. Students doing an internship abroad, who often had to return to the Netherlands, could resume and finalize their projects. CLHC events as the Frontiers of Forensic Science lecture series had to be moved to the on-line

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platform and the annual symposium had to be cancelled. However, these restrictions triggered a new CLHC initiative that was welcomed and embraced by many of the most important forensic science academic centers around the globe: The Crossing Forensic Borders international on-line lecture series. The series, running from December 2020-June 2021, is a big success with 200-300 attendants per session. A total of 14 sessions will be organized, each hosted by an European, American or Australian academic center involved in forensic science and education. The lecture series is described in more detail in this annual report. Concluding, in many ways 2020 has proved to be a

Funding

memorable year for the CLHC and the forensic community! With respect to forensic science research activities a lot of new projects have been started, grants have been secured and an impressive number of scientific papers have been published. So despite the Corona pandemic we have seen a significant expansion of our network and research portfolio.

In this annual CLHC report, the results are not only listed and analysed in terms of quality and quantity but also categorized according to a number of key activity areas for the CLHC. These areas are indicated via icons throughout the document:

Society

Education

International

Network





Chair and dean Amsterdam UMC

Director Science and Technology NFI

Board chair - Amsterdam UMC

Board chair - FNWI

Dean FNWI

Board member - NFI

Board member - HvA

Board member - VU

CLHC Director - Amsterdam UMC

CLHC Director - FNWI

Education coordinator FNWI (MFS program)

Education coordinator Amsterdam UMC

Bureau support FNWI

Bureau support Amsterdam UMC

Coordination BMEPh

Coordination Radiology - Amsterdam UMC

Peter van Tienderen

Hans Romiin

Annemieke de Vries

Ton van Leeuwen, Jaap Stoker Peter Schoenmakers, Eric Opdam

Annemieke de Vries

Christianne de Poot

Gareth Davies Maurice Aalders Arian van Asten

Arian van Asten. Yorike Hartman Rick van Rijn, Roelof Jan Oostra

Eric Sennema Gepke Uiterdijk

Maurice Aalders (Ton van Leeuwen)

Rick van Rijn (Jaap Stoker)

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Coordination Anatomy, Anthropology, Archaeology

- Amsterdam UMC

Coordination Forensic Medicine

- Amsterdam UMC/GGD

Coordination HIMS - FNWI

Coordination IBED - FNWI

Coordination IoP - FNWI

Coordination IVI - FNWI

Coordination KdVI - FNWI

Coordination SILS - FNWI

Coordination HvA & VU-Law

Coordination VU-Science

Earth Sciences

Mathematics

Bioanalysis

Coordination TU Delft-3mE

Coordination Avans

Roelof-Jan Oostra, Lida van der Merwe

Udo Reijnders

Arian van Asten (Peter Schoenmakers)

Eva de Rijke, Hans Breeuwer

Daniel Bonn

Jaap van Ginkel, Zeno Geradts

Marjan Sjerps (Eric Opdam)

Pernette Verschure, Titia Sijen (Ate Kloosterman)

Christianne de Poot

Lisette Kootker (Gareth Davies)

Klaas Slooten (Ronald Meester),

Isabelle Kohler (Govert Somsen)

Arjo Loeve

DOLL

Ben de Rooii

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RESEARCH





The forensic CLHC themes

Redefining the CLHC themes

In 2020, a new CLHC folder was designed and presented at the 72nd AAFS conference in Anaheim, USA. An update was necessary because of the expansion of the network and the research activities in the previous years. In this process also the CLHC research themes were revised to provide a clear overview of the focal points of the forensic research and the academic forensic expertise available in the network. The CLHC activities within the themes are illustrated below. These themes were described in more detail at the end of 2020 in an article in the Dutch journal "Expertise and Recht", which also covers the history and network model of the center. The article is open access and can be downloaded from the CLHC website but has been written in Dutch in line with requirements of the journal.

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Forensic science output

Institute	Granted Projects	Ongoing Projects	PhDs/ Postdocs	PhD dissertations	Scientific publications *	Scientific presentations**
BMEPh - AUMC	-	7	5/2	-	7	4
RAD - AUMC	-	6	6/0	1	9	4
AAA - AUMC	-	6	6/0	-	12	-
FMED - AUMC	3	2	2/0	-	7	2
HIMS	3	1	3/0	1	8	6
IBED***						
IoP***						
lvl	2	7	9/0	-	6	5
KdVI	1	-	1/0	-	3	-
SILS	-	2	-	-	10	1
VU	-	1	1/0	1	5	2
HvA***						
3mE - TUD	1	-	-	-	3	2
Avans	1	-	-	-	-	-
Total****	11	32	33/2	3	70	26

Forensic science and forensic science related activities within the CLHC institutes in 2020

- * Publications that appeared in a printed volume in 2020 (i.e. full reference available) in peer-reviewed scientific journals (including books and book chapters with ISBN numbers)
- ** Scientific keynote, invited speaker or accepted abstract presentations in official symposia and conferences in 2020.
- *** No data was provided.
- **** Totals, without the contributions from IBED, IoP and HvA. The total can be less than the sum of the institute numbers due to collaborations between CLHC institutes.

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(Special) Chairs in Forensic Science

The realization of academic chairs is of key importance to develop forensic science areas within the CLHC and to connect forensic practice, science and education. Professorships by special appointment merge the forensic and academic world. Professors appointed on forensic full and special chairs represent research priority areas 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. In 2020 a total of 8 special chairs and 2 full chairs in forensic science (or with a clear forensic component) were active within the CLHC network after the official appointment of prof dr Titia Sijen from the NFI on a special chair in forensic human biology at the Swammerdam Institute for Life Sciences on the 1st of September 2020:

Special Chairs in Forensic Science

- Forensic Statistics @ KdVI/FNWI prof dr Marjan
 Sjerps (NFI) 2020-2025 (3rd term)
- Forensic Biophysics @ BMEPh/AUMC prof dr Maurice Aalders (AUMC) - 2017-2022 (2nd term)
- Forensic Biology @ SILS/FNWI prof dr Titia Sijen -2020-2025 (1st term)
- Forensic Radiology @ AUMC prof dr Rick van Rijn
 (AUMC) 2019-2024 (2nd term)
- Forensic Data Science @ IvI/FNWI prof dr Zeno
 Geradts (NFI) 2019-2024 (2nd term)

- Forensic Medicine @ AUMC prof dr Udo Reijnders (GGD) - 2015-2020 (1st term, retirement)
- Mathematics for Forensic Genetics @ Science/VU
 prof dr Klaas Slooten (NFI) 2020-2025 (2nd term)
- Criminalistics @ Law/VU prof dr Christianne de Poot (WODC/HvA/PA) - 2016-2021 (1st term)

Full Chairs in Forensic Science:

- Forensic Analytical Chemistry and On-Scene
 Chemical Analysis @ HIMS/FNWI prof dr Arian van Asten 2018-2035 (sponsored by the NFI 2018-2023)
- Analytical Chemistry and its applications in Forensic
 Science @ HIMS/FNWI prof dr Peter Schoenmakers 2002-2021
 (retirement)

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 insights (as published in peer reviewed publications) and new methods for forensic case work but also leads to a new generation of experienced and talented scientists for the criminal justice system. CLHC professors, forensic experts and scientists within the institutes continuously explore options for obtaining funding to initiate new projects. Regularly, project proposals are submitted within national and international calls. In 2020, in total 3 PhD students successfully defended their forensic thesis:

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Front covers of the 2020 forensic PhD theses

- Henri de Bakker Forensic radiology in the Netherlands: Results of a symbiotic collaboration in the pathological-radiological field - AUMC-Februari 26, 2020
 - Promotor: prof Rick van Rijn
- Karlijn Bezemer FEXIN: Forensic Explosives
 Intelligence FNWI/HIMS September, 2nd, 2020
 - Promotor: prof Arian van Asten, prof Peter Schoenmakers
- Esther Plomp Unlocking teeth: Development and application of isotopic methods for human provenance studies - VU Geology and Geochemistry-September, 3nd, 2020
 - Promotor: prof Gareth Davies

Since the start of the CLHC in 2013 in total 29 students obtained a PhD degree in forensic science.

Annual PhD symposium and start of the Crossing Forensic Borders lecture series

Due to Corona lockdown, the annual PhD symposium

unfortunately had to be cancelled. A full day on-line event was not considered to be a viable option. Instead, a new idea was proposed to the international forensic academic community to start a global lecture series with relatively short sessions of 1-2 hours. In these Crossing Forensic Borders sessions each institute presents its academic education and research. The lecture series was kicked-off by the CLHC on December 2nd, 2020. More information is provided in section 4 (Education).

National Forensic Research Agenda (NFOA)

In 2020, in collaboration with the Netherlands Forensic Institute, the CLHC initiated a nation-wide forensic survey as a first step to set up a Dutch national research agenda on forensic science. Over 200 forensic scientists, experts, teachers and professionals in the criminal justice system were invited to participate in an on-line survey to share their thoughts on challenges, opportunities and priorities for forensic academic research in the Netherlands in the coming years. The agenda will be used to provide direction, to discuss funding of forensic academic science with funding agencies and to build an even stronger, nation-wide forensic academic network. The on-line survey ran over the summer of 2020 and yielded a response of roughly 50%. A summary of the responses was communicated with the respondents at the end of the year. The next step will be to organize a number of workshops in collaboration with the Lorentz Center of Leiden University in which forensic scientists and criminal justice professionals will further develop the agenda on the basis of the survey findings. Due to the Covid restrictions these workshops are currently scheduled for early 2022 and hence the final NFOA document will be presented in Q2, 2022.

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network. In the academic years 2019-2020 and 2020-2021 the literature thesis in the 2nd year of the Forensic Science master was fully coordinated by the CLHC (course coordinator; prof dr Arian van Asten). Additionally, the CLHC wants to ensure that forensic scientific talent is given maximum opportunity to continue their career in forensic science through PhD projects that emerge from the CLHC program.

On-line poster presentation Advanced Forensic Biology

Because of the cancellation of the annual CLHC symposium the teachers of the course Advanced **Forensic Biology** (course coordinator prof dr Titia Sijen) organized a separate on-line event where the students presented their forensic biological research proposals to a CLHC expert panel.

Frontiers in Forensic Science sessions

In 2020, in total three sessions were organized (two in the academic year 2019-2020 and one in the academic year 2020-2021). Due to the Corona pandemic two of these sessions were organized on-line, the only on-site event was hosted by the Amsterdam University of Applied Sciences in the beginning of March prior to the lock-down. This session was dedicated to the very

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successful RAAK PRO project 'Vingersporen, de bron en verder' (Fingermarks, the source and beyond) coordinated by prof Christianne de Poot. The first session of the academic year 2020-2021 was the first frontiers to be organized by the students of the Master Forensic Science. This session included duopresentations of students and their internship supervisors to illustrate how forensic academic science and education go hand-in-hand as a result of the MFS-CLHC collaborations. This session also marked the 15th anniversary of forensic science MSc program at the Institute for Intersdisciplinary Studies of the Faculty of Science of the University of Amsterdam.



Poster announcements of the FFS sessions organized by the IIS and CLHC in 2020

The Footprint of Fingermarks - March 6th, 2020 -HvA Location Leeuwenburg, Weesperzijde Session Chair: Anneke Koster, Christianne de Poot (HvA)

Speakers: Robert Otte (Dutch Police), Anouk de Ronde (HvA), Elmarije van Straalen (HvA), Marcel de Puit (TU Delft, NFI)

- Meeting the NPS Challenge in Illicit Drug Analysis
 June 5th, 2020 On-line
 Session Chair: Arian van Asten (HIMS, FNWI, UvA)
 Speakers: Jorrit van de Berg (NFI), Ruben
 Kranenburg (Dutch Police), Jennifer Bonetti (DFS Virginia)
- Students and Scientists: Forensic Innovation from two perspectives - September 17th, 2020 - On-line Session Chair: Lisa Klok, Reini van Hal (MFS, Student members of the CLHC) Speakers: Floor Dussel (MFS) & Jessica Jansen (TNO), Citlalli Limpens (MFS) & Hille Fieten (UUtrecht), Simão Ribeiro Margarido (MFS) &

Margreet van den Berge (NFI)



Special logo designed to celebrate 15 years of forensic science education at the University of Amsterdam

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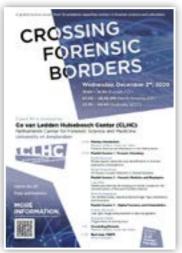
Crossing Forensic Borders sessions

To provide the academic forensic science students with an international perspective during the world-wide Covid lockdown in total 13 academic forensic centers in North America, Australia and Europe joined the CLHC initiative to organize a unique on-line lecture series. The series, named *Crossing Forensic Borders*, aims to provide insight in the forensic academic education and research across the globe. The first session was offered on December 2nd, 2020 by the CLHC with an on-line event that was attended by nearly 300 forensic students, scientists and professionals from the criminal justice system. Additionally, the students of the Master Forensic Science organized a forensic pub quiz with

international teams to stimulate student contacts across countries and continents. In 2020 a second event was hosted by the US institute CSAFE (Center for Statistics and Applications in Forensic Evidence) involving several universities and having its base at lowa State University. This session was chaired by CSAFE scientific director prof Alicia Carriquiry. The lecture series will be continued in 2021 and will run until the end of the academic year by which in total 14 sessions have been organized with a session 'every other week'. The initiative has met great enthusiasm with the teachers, scientists and their students and after 2021 a continuation in an adapted form could definitely be considered.

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Poster announcements of the Crossing Forensic Borders lecture series and the first two sessions hosted in 2020 by the CLHC and CSAFE.







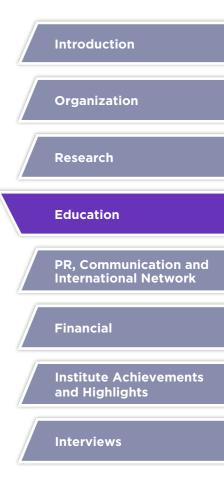
Teaching

The IIS master program in Forensic Science strongly relies on forensic expert input from the institutes and scientists linked to the CLHC. In the academic years 2019-2020 and 2020-2021 many CLHC associated teachers (often CLHC coordinators, scientists and

professors) were involved in the Forensic Master curriculum. 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.

Institute	CLHC coordinator / scientist	Course in de Forensic Science Master	Contribution	Year
BMEPh - AUMC	Prof dr Maurice Aalders	Research and Innovation in Forensic Biophysics	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 & Teacher	1
HIMS	Prof dr Arian van Asten	Literature Thesis	Coordinator	2
	Prof dr Arian van Asten	Research Project	Coordinator	2
	Prof dr Arian van Asten	Criminalistics and Analytical Chemistry	Guest lecture	1
	Prof dr Arian van Asten	Chemical Analysis for Forensic Evidence (CAFE)*	Coordinator & Teacher	2
IvI	Prof dr Zeno Geradts (NFI)	Complex Crime Scenes	Teacher	1
KdVI	Prof dr Marjan Sjerps (NFI)	Forensic Statistics and DNA Evidence	Teacher	1
		Forensic Statistics and DNA Evidence	Coordinator & Teacher	1
SILS	Dr Titia Sijen (NFI)	Advanced Forensic Biology	Coordinator & Teacher	2
	Dr Pernette Verschure	Advanced Forensic Biology	Teacher	2
	Prof dr Ate Kloosterman (NFI)	Advanced Forensic Biology	Teacher	2
	Prof dr Ate Kloosterman (NFI)	Forensic Statistics and DNA Evidence	Teacher	1
NFI	Drs Erwin Mattijssen	Observer Based Techniques	Coordinator & Teacher	2
	Drs Irene O'Sullivan	Complex Crime Scenes	Coordinator & Teacher	1

MFS course coordination and contribution from CLHC coordinators and scientists in 2020



^{*} The CAFE course is a specialization course for MFS students offered within the MSc Chemistry curriculum







Research Projects and Literature Theses

The collaboration of the CLHC and the MFS ensures the incorporation of recent scientific developments, cutting-edge research and forensic relevance into the master. The CLHC institutes play an important role in providing relevant and challenging topics for the literature thesis and research project assignments for the students during their 2nd year of the forensic science master. Of all literature theses and research projects the large majority was supervised by CLHC partner institutes in

2020. In this framework the CLHC promotes student supervision by forensic experts and PhD students in the network while the CLHC coordinators and professors act as examiners. 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. Details can be found in the Institute Annex to this annual report.

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In 2020 the visibility of the CLHC in the international forensic community was boosted by its presence at the AAFS conference in Anaheim and the initiative and kick-off of the Crossing Forensic Borders lecture series as described in more detail in the Education section. During the AAFS conference the new CLHC folder and banners were presented, providing up to date information with respect to the network partners and their forensic activities.

Also in 2020 forensic research within the CLHC and associated CLHC partners featured in national media (TV, radio, multimedia, newspaper, science infotainment) on several occasions. In the institute annex to the annual report all PR/Communication activities are listed for each CLHC partner. The annex can be made available upon request.





The new CLHC folder and banners that were presented to the international forensic community during the AAFS 2020 conference held in Anaheim, USA, from February 17-22.

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Remarkable highlights include:

- Powder threat letters expert opinion by Arian van Asten (HIMS), several newspapers & RTL news, November 2020.
- Therminus, NOS news item & several newspapers, Martin Roos (NFI) & Maurice Aalders (AUMC), May 2020
- 'Historisch Bewijs' ('Historical Evidence') with contributions from Wim Kerkhoff (NFI), Amalia Brouwer-Stamouli (NFI), Ate Kloosterman (NFI/UvA), Maurice Aalders (AUMC), Leah Wilk (AUMC), Arian van Asten (HIMS/NFI), February 2020

The CLHC website

An important communication platform for internal and external use is the CLHC website (www.clhc.nl). Ineke Weijer ensures as the CLHC website coordinator that the site is a dynamic platform which provides the latest forensic scientific information both nationally and

internationally. Information on the (special) chairs in forensic science, key publications and forensic PhD's can be found in the 'Research' section. Historic documents on the work and life of Co van Ledden Hulsebosch are digitized and made available. 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. In 2020, MFS alumnus Anne Harteveld joined the CLHC team as website content editor. For on average 1 day a week she provides content and improves and expands the website, especially with respect to the Research section. This work will be continued in 2021. The 'Co van Ledden Hulsebosch Center' Facebook and LinkedIn page features news and events which reach on average 150 visitors per message. A 2020 highlight was the announcement of the first online FFS session, which was read by 850 people on facebook and 2700 people on LinkedIn.

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The CLHC holds a limited budget for its activities. Every year all primary partners provide a small financial contribution (1500 or 2500 euro) which in 2020 added up to a total of 28.5 keuro. In 2020 expenses were less compared to the original plans because of the Covid pandemic leading to the cancellation of a number of on-site activities for which significant budget was reserved (e.g. the annual CLHC symposium). Most expenses were associated with CLHC representation at the AAFS 2020 conference. Furthermore, the production of the annual report, and CLHC website support accounted for significant expenses (3-4 keuro each) followed by the support of PhD thesis printing and activities related to the National Forensic Research Agenda (2-3 keuro each). With a balance of almost 8

keuro at the beginning of the year and expenses in total of nearly 20 keuro, the CLHC budget at the end of 2020 increased to roughly 16 keuro. All financial details are given in the financial annual report of the center in a separate annex that can be made available on request. The final annual report over 2020 was approved by the CLHC steering group in 2021.

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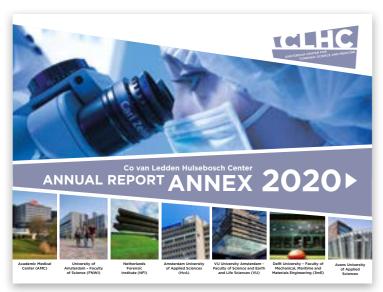
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In the institute annex all significant forensic achievements in 2020 are listed for every institute and the associated scientists. The report can be made available upon request.



The CLHC Annual Report 2020 Institute Annex

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In memoriam Co van Ledden Hulsebosch Junior (03-03-1936 - 23-01-2020)

We want to dedicate this annual report to a dear friend and fanatic supporter of our center, Co van Ledden Hulsebosch, grandson of and named after the famous Dutch pioneer in forensic science. We met Co junior for the first time in 2013 when we sought contact with the van Ledden Hulsebosch family to request their approval to use their family name for our center. When we found and contacted Co junior we quickly discovered that this friendly, elderly man was a very special character with a love for the forensic history of his grandfather. So, we not only obtained the approval to use the famous family name but also gained a friendly, energetic supporter with a great record of the forensic history of the van Ledden Hulsebosch family and a vivid memory of the

stories that his famous grandfather told him when he was still a small boy. The historical section of the CLHC website with several digitized historical records could not have been realized without his contribution. Co junior also started to make his annual appearance at the CLHC symposium in October, inspiring the students, assisting with the award ceremony and providing historical displays on the life and work of Co van Ledden Hulsebosch during the lunch sessions. With his friendly and very positive attitude he inspired the MFS students of the Master Forensic Science and he had no issues whatsoever to have animated talks with the young forensic talents in English. Co van Ledden Hulsebosch reached a respectable age of 83 but nonetheless he will be dearly missed by all involved in the CLHC network.



Co van Ledden Hulsebosch junior at the CLHC annual symposium (October 2018)

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Mini interview with prof dr Titia Sijen, appointed in 2020 on a special chair Forensic Human Biology



Name Titia Sijen

Position Team leader and senior scientific researcher

InstituteNetherlands Forensic InstituteSpecial chairForensic Human Biology (SILS)

Since September 2020

What are your research ambitions as newly appointed professor in forensic human biology?

I think forensic casework can gain from a more coherent approach: how can the various techniques be applied and combined so that they add maximum value in a case, can we extract knowledge from analyzed cases to apply to new cases, can we find ways to reduce the analysis time for simple cases so that we can expand on the very complex and challenging cases, are there novel ways to exploit the genetic information in the human genome. I am embedded in the Biosystems Data Analysis group which has very different expertise so I am sure this will bring new views and approaches to our forensic challenges.

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What have been your greatest achievements as team leader and senior scientist at the NFI?

When I started in 2007 as team leader, the Research team was a small group with small projects. I was lucky that half a year later a 5-year program started (FGCN: Forensic Genetics Consortium Netherlands, a research partnership between Prof Manfred Kayser - EMC, Prof Peter de Knijff - LUMC and NFI, funded by NWO), which facilitated expansion of the team and provided a scientific boost, Amongst others, we developed RNA assays to assess the presence of bodily fluids or organ tissues in evidentiary stains. My academic background involved much RNA work, which provided not only knowledge but also the perseverance that was needed to develop these assays. Two PhD students have graduated on this subject, indicating it was not a Friday afternoon job. I think we made good and complete assays that are supplemented with the needed interpretation guidelines. We have applied the methodology to many cases, which are often sexual assault cases and it is rewarding that our development

helps in these particularly vulnerable cases. As a team leader, I truly enjoy to see people develop and grow: technicians that go for a PhD and deliver a great thesis; interns that go from shy to sharing their opinions; team members that become scientifically independent and a team spirit that inspires beyond the research team.

What are your first experiences as course coordinator and teacher at the UvA?

The students are highly motivated and enthusiastic which makes it real fun to teach. The course had been running for several years, and I am very impressed with the design of the course: my compliments! That also meant that I just needed to update the lectures, not re-design the whole course. We have a good chemistry between the teachers and I hope this is inspirational for students. The course ran in October 2020, so all but one hands-on lecture was online, unfortunately. By now I have even figured out the difference between canvas and datanose!

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Mini interview with prof dr Zeno Geradts, president of the 72nd AAFS conference

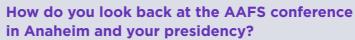
Name Zeno Geradts

Position Forensic expert and scientist Digital Forensics

Institute Netherlands Forensic Institute

Special chair Forensic Data Science (Informatics Institute)

Since September 2014



It was for me the certainly the nicest event of the year. We were lucky that there was no lock down yet, so the meeting of 4000 colleagues was a very nice opportunity. The Presidents Reception was the last big party I had in 2020. since I was lucky that there was no lockdown yet. It was very special for me to stay in the Presidents Suite of the Hilton hotel and also to have business meetings as well as meetings with the Executive Committee. It was also special to open the meeting and I had much support from the staff of the AAFS and of the Board of Directors, so the representatives of all section. The Sunday meeting in a museum and my presentation

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on forensic deep fake detection was well received. I also really appreciated the presence of our Director Annemieke de Vries and the large attendance of our Dutch Colleagues and the Directors of CLHC.

How did you become the first foreign president in the history of the AAFS?

When I was in New York at my first meeting of AAFS in 1995, I was impressed by the meeting. Later, I was sitting in the audience of the business meeting and wondered if it would be possible to become President of the Academy. Then I looked what was needed for this, so becoming associate member first, then member and Fellow. I was at the business meeting of the Engineering Sciences Section, and suddenly they nominated me as Secretary, so then the process started. I was chairman of the section, and after that we started with my colleagues the new section Digital and Multimedia Sciences and I was elected as Chairman and later on as Director. There appeared to be much support to have a President from Europe, so then I was elected as Vice President, and

became Treasurer, and President Elect. I really appreciate the AAFS very much and like to organize workshops as well as present papers. The networking opportunities are always very good. Also, the AAFS is very international since there are many attendees from all over the world and members as well. There was also a Canadian President before me so technically I am not the first foreign President.

What are your ambitions for the future?

My ambitions are to continue working in forensic science with innovations in artificial intelligence and interpretation of large amounts of data. I always would like to have much more computing power than is available at the moment, so preferably I would like to have access to a quantum computer and help develop new algorithms to improve the reliability and possibilities of forensic evidence in court in an ethical setting and according to the rule of law. Collaboration with colleagues all over the world seems for me important to achieve this, as well as involvement in International Projects and in Associations, where the link between the NFI and the University is very important. If feasible I would like to become President of the International Academy of Forensic Science in the future or work for Humanitarian Forensic Actions.

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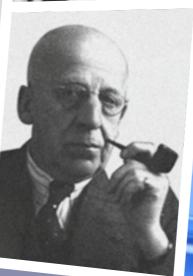


Colophon

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

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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











