

# Co van Ledden Hulsebosch Center ANNUAL REPORT 2016



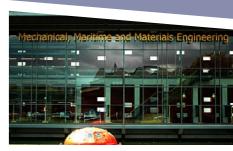
University of Amsterdam Faculty of Science (FNWI)



**Netherlands Forensic** Institute (NFI)



Amsterdam University of Applied Sciences (HvA)



**Technical University Delft** Faculty of Mechanical, Maritime and **Materials Engineering** 





with contributions of Rick van Rijn, Roelof-Jan Oostra, Hans de Boer, Udo Reijnders, Peter Schoenmakers, Gabriel Vivo-Truvols, Ate Kloosterman, Pim de Voogt, Karla de Bruin. Zeno Geradts, Jaap van Ginkel, Marjan Sjerps, Bert van Es, Pernette Verschure, Eva de Rijke, Isabella von Holstein, Gareth Davies, Christianne de Poot and Arjo Loeve.

Through the renewed agreement in 2015 and continued collective efforts from the partner institutes, the Co van Ledden Hulsebosch Center (CLHC) has established a firm foundation and has become a nationally and internationally recognized trademark for forensic science in Amsterdam and the Netherlands. In line with the new options of the agreement, the CLHC welcomed the Amsterdam University of Applied Sciences (HvA) as its first official primary partner and the Engineering faculty (3mE) of Delft University of Technology (TU Delft) as its first secondary partner.

The annual plan for 2016 aimed at consolidating the quantity and diversity of the forensic science projects in the CLHC portfolio. As the forensic science program of NWO came to an end in 2016 with no new national call the forensic scientists and coordinators within the center had to explore new national and international funding options to maintain and strengthen the portfolio. In a landscape of decreasing science budgets and thus fierce competition acquiring funds for applied science was and is very challenging and requires ambition and ingenuity.







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In 2016 the CLHC submitted its first proposals in an international context and collaborated with European partners to compete in various H2020 calls of the EU. By doing so the international base and network of the center was further developed although this was also successfully pursued by establishing informal partnerships with several international academic institutes. Alternatively, more specific funding programs and collaborations were explored successfully to initiate new forensic science projects. In this way the partner institutes were able to collectively not only maintain but even grow the forensic science program within the CLHC > read more in Chapter 3 Research.

An additional goal for 2016 was to further intensify the link between forensic science and forensic academic education in Amsterdam. In a joint effort the Forensic Science Master (FSM) coordinators at the Institute of Interdisciplinary Studies (IIS) and the CLHC have been able to further integrate forensic science and education thus raising the bar of both. Students of the FSM actively participate and contribute to the scientific projects often leading to co-authorship in scientific articles published in international journals. This motivates students to continue their career in (forensic) science and pursue a PhD position at a Dutch university or an academic institution abroad. In events such as the Frontiers of Forensic Science sessions and the annual forensic PhD symposium, students, scientists, forensic experts and professionals in the Dutch criminal justice system meet and interact often leading to interesting ideas for research projects and literature thesis topics > read more in Chapter 4 Education.

Finally, a unique and unplanned opportunity for further establishing the international position of the CLHC emerged in 2016 when the center was asked to consider preparing a bid for the IAFS (International Association of Forensic Sciences) conference of 2020. After consulting with the partners and exploring the options, it was anticipated that organizing a forensic academic conference of such international stature would provide unique opportunities to all involved in forensic science and education in Amsterdam. Hence the CLHC took up the challenge and started preparation of a bid for IAFS 2020 in Amsterdam to be presented at the IAFS 2017 in Canada > read more in Chapter 5 PR, Communication and International Network.

In this annual CLHC report the 2016 results are not only listed and analyzed in terms of quality and quantity but are also categorized according to the icons introduced in the 2015 report. These icons represent key activity areas for the CLHC to advance forensic science in Amsterdam:



Scientific Impact



**Funding** 



**International Network** 



**Education** 



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**Dean FNWI:** Peter van Tienderen

Chairman AMC: Marcel Levi

(Hans Romiin)

**General director NFI:** Reinout Woittiez

(key stake holder)

**Board members - AMC:** Ton van Leeuwen,

Jaap Stoker

Board members - FNWI: Jan Wiegerinck,

Joost Reek

(Marcel Bartels)

Board members - NFI: Wim Heijnen,

Harald Tepper

**Board member - HvA:** Gerard van Haarlem

Board Advisor - AMC: Agita Sanders

CLHC Director - AMC: Maurice Aalders

**CLHC Director - FNWI:** Arian van Asten

(for 0.2 fte from NFI)

**Education coordinator FNWI:** Andrea Haker,

Yorike Hartman, Jeltje van Esch

(Jan Bergstra)

**Education coordinator AMC:** Rick van Rijn,

Roelof Jan Oostra

Bureau support FNWI: Eric Sennema
Bureau support AMC: Gepke Uiterdijk
Coordination BMEPh: Maurice Aalders

Coordination Radiology - AMC: Rick van Rijn

**Coordination Anatomy,** 

**Anthropology, Archeology:** Roelof-Jan Oostra,

Hans de Boer







**Coordination Forensic** 

Medicine - AMC/GGD: Udo Reijnders
Coordination HIMS - FNWI: Arian van Asten

(Peter Schoenmakers)

Coordination IBED - FNWI: Pim de Voogt,

Ate Kloosterman

(Peter de Ruiter)

Coordination IoP - FNWI: Karla de Bruin

(Daniel Bonn)

Coordination IvI - FNWI: Jaap van Ginkel,

Zeno Geradts

(Marcel Worring)

Coordination KdVI - FNWI: Bert van Es,

Marjan Sjerps (Eric Opdam) **Coordination SILS - FNWI:** Pernette Verschure,

Eva de Rijke

(Marten Smidt)

**Coordination HvA:** Christianne de Poot

Coordination TU Delft-3mE: Arjo Loeven

(Jenny Dankelman)

**Coordination VU-FALW\*:** Isabella von Holstein

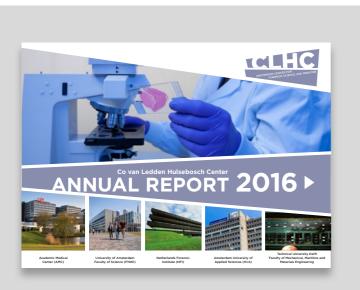
(Gareth Davies)

Coordination VU-Science\*: Klaas Slooten

(Ronald Meester)

Coordination VU-UMC\*: Paul Krijnen

(Hans Niessen)



# **CLHC ANNUAL REPORT 2016**

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<sup>\*</sup> partnership to be formalized in 2017









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| Institute   | Granted<br>Projects | Ongoing<br>Projects | PhDs/<br>Postdocs | PhD<br>dissertations | Scientific<br>publications * | Scientific presentations** |
|-------------|---------------------|---------------------|-------------------|----------------------|------------------------------|----------------------------|
| BMEPh - AMC | 1                   | 4                   | 4/1               |                      | 3                            | 11                         |
| RAD - AMC   | 3                   | 8                   | 8/0               |                      | 11                           | 8                          |
| AAA - AMC   |                     | 3                   | 3/0               |                      | 11                           | 12                         |
| FMED - AMC  |                     | 2                   | 2/0               | 1                    | 7                            | 7                          |
| HIMS        |                     | 3                   | 4/0               |                      | 13                           | 12                         |
| IBED        | 3                   | 7                   | 5/1               |                      | 9                            | 1                          |
| IoP         |                     | 1                   | 1/0               | 1                    |                              |                            |
| IvI         | 1                   | 4                   | 5/0               |                      | 10                           | 7                          |
| KdVI        |                     | 4                   | 3/0               | 3                    | 8                            | 15                         |
| SILS        | 3                   | 2                   | 0/2               |                      | 1                            | 3                          |
| FALW-VU     | 1                   | 3                   | 4/4               |                      | 7                            | 3                          |
| HvA         | 2                   | 6                   | 6/0               | 1                    | 10                           | 10                         |
| 3mE - TUD   | 1                   |                     | 0/0               |                      | 1                            | 2                          |
| Total***    | 15                  | 42                  | 45/8              | 6                    | 87                           | 91                         |

#### Forensic science and forensic science related activities within the CLHC institutes in 2016

- Publications that appeared in a printed volume in 2016 (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)
- 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 connect forensic practice, science and education. These chairs literally bring the forensic and academic world together and the appointed professors form research focal points from which new initiatives can be undertaken and proposals can be submitted. In 2016 one new special chair in forensic science was announced and one inaugural speech was given within the CLHC network:

#### **Appointment:**

 Criminalistics @ Law/VU - prof dr Christianne de Poot (WODC/HvA/PA) - 2016-2021



Inaugural speech of prof dr Udo Reijnders - September 22<sup>nd</sup>, 2016, Aula of the UvA (Lutherian Church)

#### **Inaugural speech:**

 Prof dr Udo Reijnders - Forensic Medicine - AMC/ GGD - September 22<sup>nd</sup>, 2016: Forensic Medicine: from individual dedication to recognized expertise

With these developments in total 9 special chairs in forensic science have been established within the CLHC:

- Forensic Biology @ IBED/FNWI prof dr Ate
   Kloosterman (NFI) 2008-2017 (retirement)
- Forensic Statistics @ KdVI/FNWI prof dr Marjan
   Sjerps (NFI) 2010-2020 (2<sup>nd</sup> term)
- Forensic Analytical Chemistry @ HIMS/FNWI prof dr
   Arian van Asten (NFI) 2012-2017
- Forensic Biophysics @ BMEF/AMC prof dr Maurice
   Aalders (AMC) 2012-2017
- Forensic Radiology @ AMC prof dr Rick van Rijn
   (AMC) 2014-2019
- Forensic Data Science @ IvI/FNWI prof dr Zeno Geradts (NFI) - 2014-2019
- Forensic Medicine @ AMC prof dr Udo Reijnders (GGD) - 2015-2020
- Mathematics for Forensic Genetics @ Science/VU prof dr Klaas Slooten (NFI) - 2015-2020
- Criminalistics @ Law/VU prof dr Christianne de Poot (WODC/HvA/PA) - 2016-2021

These chairs represent 64% of the total number of chairs in forensic science in the Netherlands (14). In addition to the CLHC partners these chairs are established at the University of Leiden (prof dr Charles Berger-Criminalistics), Twente University (prof dr Didier Meuwly-Forensic Biometrics) and Maastricht University

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(prof dr Bela Kubat-Forensic Pathology, prof dr mr Wilma Duijst-Forensic Legal Medicine, prof dr Paul Hofman-Forensic Radiology). The importance of the special chairs in forensic science is highlighted in this annual report with a mini interview of two recent CLHC professors in forensic science: prof dr Christianne de Poot and prof dr Udo Reijnders.

#### **PhD Theses**

The most preferred 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 2016 in total 5 PhD students successfully defended their forensic thesis:

 Martin Lopatka - Statistical interpretation of chemical evidence pertaining to fire debris - KdVI/HIMS/NFI
 - June 30th. 2016

Promotors: prof dr M. Sjerps, Co-promotor: dr. G. Vivo-Truyols

- Nanang Susyanto Semiparametric Copula Models for Biometric Score Level Fusion - KdVI/UT -October 11th, 2016

  Promotors prof dr. Chris Klasson (LlvA)
  - Promotors: prof. dr. Chris Klaassen (UvA), prof.dr.ir. Raymond Veldhuis (UT) Co-promotor: dr. ir. Luuk Spreeuwers
- Judith Fronczek New developments in autopsy pathology and forensic diagnostics - VU/GGD -October 27th, 2016

Promotors: prof. dr. Hans Niessen, prof dr Udo Reijnders

- Jacob de Zoete Combining forensic evidence -KdVI/VU/NFI - November 22<sup>nd</sup>, 2016
   Promotors: prof. dr. M. Sjerps,
   Co-promotor: prof dr R. Meester
- Paul Duijn Detecting and disrupting criminal networks
   IVI/ NFI December 22<sup>nd</sup>, 2016
   Promotors: prof dr A.G. Hoekstra,
   Co-promotor: prof. dr. Z. Geradts

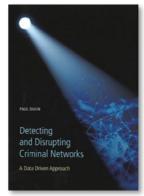
Since the start of the CLHC in 2013 in total 13 students obtained a PhD degree in forensic science.



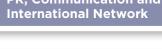












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## **Annual PhD symposium**

In 2016 the annual CLHC forensic PhD symposium was organized for the 3rd time. The theme for this edition was the value of interdisciplinary collaboration in forensic science to highlight the forensic innovations and novel insights that often emerge when scientists and practitioners from various areas of expertise join forces. The 2016 symposium was organized at CWI Science Park on Friday, October 28th and was attended by over 100 FSM students, PhD students, scientists, forensic experts and partners from the criminal justice system. Participants were welcomed by prof Ton van Leeuwen and dr Wim Heijnen on behalf of the CLHC

board. Plenary presentations were given by Madeleine de Gruijter, Elmarije van Straalen, Anouk de Ronde and Ward van Helmond (HvA), Kerri Colman and Tristan Krap (AMC), Rob van Kan (Dutch Police, Maastricht University) and by invited key note speakers Eva de Rijke (SILS, UvA) and Katrien Keune (Rijksmuseum).

A special committee selected the following winner for the "Best PhD Poster award" of the 2016 CLHC Forensic PhD Symposium:

 Exploring DASH: Detecting and Age Determination of Subdural Hematomas, Kim Fagalde - BMEP, AMC







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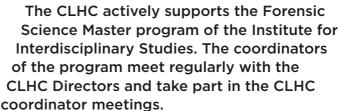
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The CLHC website is used by the students to find topics and contacts for literature theses and research projects (<a href="http://www.clhc.nl/education">http://www.clhc.nl/education</a>). These topics are provided through the CLHC coordinators and the CLHC network. In the academic year 2016-2017 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. In the current portfolio of forensic science projects within the CLHC, 11 PhD students initially obtained a master in forensic science from IIS.

## PhD symposium

After the very successful implementation of a FSM student poster event during the 2015 symposium, 2<sup>nd</sup> year students involved in the course Advanced Forensic Biology coordinated by SILS and IBED (Pernette Verschure, Martijs Jonker, Ate Kloosterman) once more presented their forensic biological research proposals during the 2016 edition. The PhD committee awarded one student group as winner of the "Best Student Poster award" of the 2016 CLHC Forensic PhD Symposium.



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#### Frontiers in forensic science sessions

Forensic Science students are also strongly encouraged to attend the jointly organized Frontiers of Forensic Science (FFS) sessions which are part of the Forensic Master program but which are 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 sponsors invited lectures by renowned forensic scientists from abroad and the organization of one FFS session outside Science Park. The CLHC maintains an extensive contact list from the science. forensic and criminal justice communities and each FFS session is announced to these contacts. For each session a special, high quality poster announcement is prepared and distributed. Consequently, attendance is high (60-100+) and diverse and this provides excellent opportunities for the students to meet forensic and scientific experts, police officers and legal professionals.

In 2016 in total four sessions were organized (two in the academic year 2015-2016 and two in the academic year 2016-2017):

- Forensic Biometrics February 13th, 2015 UvA Science Park CLHC speaker: Jeannette Leegwater (KdVI, NFI) Guest speaker: prof dr Didier Meuwly (Twente University, NFI) Guest speaker: dr Chris Zeinstra (Twente University)
- Criminal Law, Criminalistics and Forensic Statistics
   June 5th, 2015 UvA Science Park
   CLHC speaker: Jacob de Zoete (KdVI, NFI)

Guest speaker: prof dr Charles Berger (Leiden University, NFI) Guest speaker: prof dr mr Miranda de Meijer (Law Faculty/UvA. OM)

- Epigenetic Signatures September 23rd, 2015 O|2 Building, VU campus
  CLHC speaker: dr Jana Naue (SILS)
  Guest speaker: dr Jenny van Dongen (VU)
  International guest speaker: prof dr Bruce McCord
- Explosives! December 4th, 2015 UvA Science Park CLHC speaker: Karlijn Bezemer (HIMS, NFI) Guest speaker: dr Mattijs Koeberg (NFI) Guest speaker: prof dr Antoine van der Heijden (TU Delft, TNO)

#### **Teaching**

(FIU. Miami, USA)

The mission of the IIS Master's programme in Forensic Science (MFS) is to train scientists with a broad forensic insight 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. The collaboration of the CLHC and the MFS ensures the incorporation of recent scientific developments and cutting-edge research into the master.

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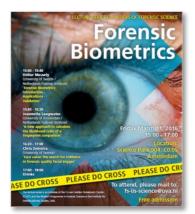
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Poster announcements of the FFS sessions organized by IIS and CLHC in 2016

| Institute   | CLHC coordinator / scientist     | Course in de Forensic Science Master                              | Contribution                 | Year   |
|-------------|----------------------------------|---|------------------------------|--------|
| BMEPh - AMC | Prof. dr. Maurice Aalders        | Research and Innovation in Forensic Science                       | Coordinator                  | 1      |
| RAD - AMC   | Prof. dr. Rick van Rijn          | Physical and Forensic Anthropology                                | Guest lecture                | 1      |
| AAA - AMC   | Prof. dr. Roelof-Jan Oostra      | Physical and Forensic Anthropology                                | Coordinator                  | 1      |
| HIMS        | Prof. dr. Arian van Asten        | Literature Thesis<br>Criminalistics and Analytical Chemistry      | Coordinator<br>Guest lecture | 2<br>1 |
|             | Prof. dr. ir. Peter Schoenmakers | Criminalistics and Analytical Chemistry                           | Guest lecture                | 1      |
| IBED        | Prof. dr. Ate Kloosterman        | Forensic Statistics and DNA Evidence<br>Advanced Forensic Biology | Teacher<br>Coordinator       | 1<br>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                  | 1      |
| SILS        | Dr. Pernette Verschure           | Advanced Forensic Biology   | Teacher                      | 2      |

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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 2015-2016 and 2016-2017 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.

The CLHC institutes also play an important role in providing interesting and challenging research project assignments for the Forensic Science master students during their 2<sup>nd</sup> year of the master. Of all literature theses and research projects over 60% is offered and supervised by CLHC partner institutes. In this framework

the CLHC aims to further strengthen the role and involvement of the forensic PhD students in the Forensic Science Master. 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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Forensic science and criminal investigations usually attract a lot of attention from 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 and the activities of the university. This in turn can attract new generations of talented students to Amsterdam. As the CLHC represents and coordinates the forensic science efforts at the UvA, 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 and television.

One of the platforms used for forensic science communication was 'SPUI25' that hosts FNWI's

"College Tour" (<a href="http://www.spui25.nl/">http://www.spui25.nl/</a>). In 2016, 4 forensic SPUI25 sessions were presented by CLHC partners:

- Big Data as Forensic Evidence, what about privacy and encryption? Zeno Geradts, Jaap van Ginkel (Informatics Institute, Netherlands Forensics Institute) (25 mei 2016)
- The judge, the expert and the evidence, on the knowledge paradox in criminal law. Koen Vriend, Anique Henderson (Faculty of Law, Institute for Interdisciplinary Studies) (20 april 2016)
- Green Forensics CSI in agriculture. Eva de Rijke, Hedwich Teunissen (Swammerdam Institute for Life Sciences, NAK Tuinbouw) (6 april 2016)
- On mutiny, murder and massive dodo deaths.
   Liesbeth Smits, Kenneth Rijsdijk (Archeology, Institute of Biodiversity and Ecosystem Dynamics)
   (23 maart 2016)

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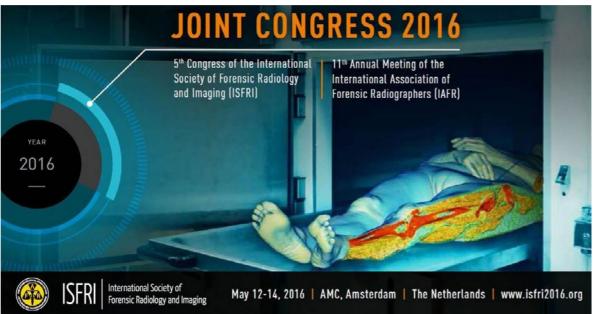
In the institute annex to the annual report all PR/ Communication activities are listed including radio and TV interviews, press releases and popular scientific articles and presentations.



#### International network

In 2015 the CLHC actively built an international network and the center presented itself to the international forensic community. In 2016 this international network was further developed. The ISFRI 2016 conference hosted by the AMC was sponsored by the CLHC and the board participated in a special event co-organized with the National Institute of Justice from the USA to arrive at a white paper for forensic radiology. A rare and unexpected opportunity presented itself in the course of 2016 when the CLHC was approached by the IAFS

(International Association of Forensic Sciences) council with the request to consider a bid for the IAFS 2020 conference. After consultation with the CLHC partners and steering group it was decided to seriously investigate the possibility of hosting the IAFS 2020 in Amsterdam. A bid for IAFS 2020 was prepared by the CLHC in 2016 and it is expected that this bid will be presented at the IAFS 2017 in Toronto. Hosting an international forensic conference of this magnitude and stature in Amsterdam will fully establish the international position of the CLHC, will boost forensic science in the Netherlands and will offer unique opportunities for FSM and forensic PhD students to participate in (the organization of) a global conference on forensic science attended by over 1000 experts from all over the world.



The ISFRI
conference 2016 on
forensic radiology
and imaging was
organized and
hosted by the
Academic Medical
Center of the
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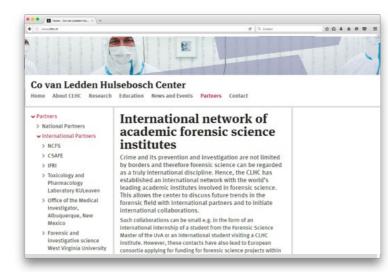






#### The CLHC website

An important communication platform for internal and external use is the CLHC website (www.clhc.nl). In 2016 the website was expanded and further developed. A CLHC web coordinator provided by HIMS ensures that the site is a dynamic platform which provides the latest forensic scientific information both nationally and internationally. More information on the special chairs in forensic science, key publications and forensic PhD theses has been made available in the Research section. Historic documents on the work and life of Co van Ledden Hulsebosch have been digitized and were made available with the help of the grandson of the forensic pioneer. In 2016 a rare copy of the inaugural speech of Co van Ledden Hulsebosch held at the UvA on May 4th, 1923 was recovered and made digitally available through the website. 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 2016 also the ambition of the CLHC Board to add an international partner page to the website was achieved. Currently this page contains information on 6 international academic partners (5 from the USA and 1 from Belgium).



Boosting international collaboration: The new international partner page of the CLHC website

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The CLHC holds a limited budget for its activities. Every year all associated FNWI institutes, the AMC and primary partner HvA provide a small financial contribution which in total makes up the annual CLHC budget of approximately 20 keuro. The CLHC expenses are relatively small because of the virtual nature of the institute and minimal 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 principle investigators. The CLHC means are used to create opportunities in terms of forensic research, forensic meetings, symposia and network and outreach activities to increase general interest and awareness of the overall forensic science efforts in Amsterdam both nationally and internationally. The CLHC directors discuss progress and "return on investment" on a regular basis with the institute directors.

In 2016 most expenses were associated with the organization of the annual forensic PhD symposium and the Frontiers of Forensic Science sessions, CLHC website management and CLHC literature thesis

printing support. In 2016 the CLHC sponsored the ISFRI conference and also supported a special course in forensic statistics with the use of the program R, both hosted by the AMC. With a balance of 21 keuro at the beginning of the year and a total expenditure of 27 keuro the CLHC budget at the end of 2016 was just over 13 keuro. It should be noted that the costs associated with hiring an NFI expert for 0.2 fte for the position of CLHC director on behalf of the Faculty of Science are not part of the CLHC budget. This is part of a separate financial arrangement between HIMS and the NFI. 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 annual financial reports of the CLHC are approved by the CLHC steering group.





In the institute annex all significant forensic achievements in 2016 are listed for every institute and the associated scientists. These results are specifically related and limited to the forensic science efforts. All projects and results have a strong forensic component but this also includes projects that are interdisciplinary in nature and cover a broader range of scientific areas.

In these instances, the forensic component should be clear and significant in terms of associated grants, financial contributions and/or scientific results. For some initiatives and new grants there is a strong forensic aspect but applied in new areas outside the traditional criminal justice system. These initiatives illustrate the potential of forensic science in Amsterdam and are strongly supported by the CLHC. The institute overviews have been prepared by the respective CLHC coordinators and illustrate the success of the matrix approach to establish a comprehensive forensic science program in Amsterdam. Highlights of 2016 obtained from these overviews are listed below.

In a separate annex of the CLHC Annual Report a detailed overview of all forensic achievements in 2016 are listed for every institute. Institute overviews can be requested by contacting the associated CLHC coordinators.

# **AMC - Forensic BioPhysics**



Project partner in the International H2020 COST Action "Multi-modal Imaging of Forensic Science Evidence (MIFE)" lead by Sheffield Hallam University (2016-2019).



Science and Justice Review paper on donor profiling from fingermarks.







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## **AMC - Forensic Radiology**



 Organization and hosting of the 5th congress of the International Society for Forensic Radiology and Imaging (ISFRI).



Granted project proposal by the Louise Vehmeijer foundation - Children with trauma in the emergency department - accident or abuse?

# AMC - Anatomy, Anthropology en Archeology



 Dr Hans de Boer was appointed honory lecturer at the University of Witswaterrand (Johannesburg, South Africa) and received the AIOS award from the Dutch Pathology Society.



Popular scientific lecture at the "University of the Netherlands" (Universiteit van Nederland) entitled "How do you discover the cause of death?" ("Hoe kom je erachter waaraan iemand overleden is?").

#### **AMC - Forensic Medicine**



 Successful defense by Judith Fronczek of her PhD thesis entitled "New developments in autopsy pathology and forensic diagnostics".



Inaugural speech of prof dr Udo Reijnders entitled "Forensic medicine, from individual dedication to recognized expertise" ("Forensische geneeskunde, van individuele toewijding naar erkend specialisme").

#### **FNWI - HIMS**



 FEXIN PhD student Karlijn Bezemer appeared on the national news during the Christmas holidays in an item on the challenges associated with illegal fireworks and the Cobra series of illegal flash bangers.



 Prof dr Arian van Asten joined the board of the new Elsevier journal Forensic Chemistry.

#### **FNWI - IBED**



Three granted project proposals based on the sewer epidemiology research by prof dr Pim de Voogt.



 prof dr Ate Kloosterman appears in an episode of Andere Tijden entitled "Death in Dover" ("Dood in Dover") to explain the DNA evidence in an infamous human illegal trafficking case.

#### FNWI - IoP



 Thijs de Goede is appointed as new PhD student on the STW project entitled "Spreading of droplets on porous surfaces".

#### FNWI - IVI



 Granted 15 million euro H2020 Fight Against Crime and Terrorism project entitled ASGARD lead by Vicom (Spain) and with an NFI/IVI contribution as project partner of in total 850 keuro.



 Prof dr Zeno Geradts receives the Carrie Morgan Whitcomb outstanding service award from the AAFS. Introduction

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#### FNWI - KdVI



 Successful defense by Martin Lopatka of his PhD thesis entitled "Statistical interpretation of chemical evidence pertaining to fire debris".



 Successful defense by Jacob de Zoete of his PhD thesis entitled "Combining forensic evidence".



 Successful defense by Nanang Susyanto of his PhD thesis entitled "Semiparametric copula models for biometric score level fusion".



#### **FNWI - SILS**



 Granted project proposal (342 keuro) on the origin tracking and tracing of horticulture products through stable isotope analysis in the Green Forensics program.



 Course Advanced Forensic Biology for 2<sup>nd</sup> year Forensic Science Master students.

#### **VU - FALW**



 Appointment of dr Isabella von Holstein as postdoc and new forensic coordinator in the team of prof dr Gareth Davies.



Prof dr Gareth Davies appeared in the BBC radio series "The body on the Moor".

#### HvA



 Prof dr Christianne de Poot was appointed on a special chair in Criminalistics at VU University.



Two successful experiments within the Raak Pro fingerprint project were carried out at a crime lab at the Lowlands festival. The research attracted substantial media attention.

#### TU Delft - 3mE



 A grant from the TU Delft was received for a MOOC on Forensic Engineering.



 Dr Arjo Loeve developed and built three prototype forensic tools: the forensic nail collector, a size reference projection tool and a contamination safe sampling tool. Introduction

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Name: Special chair:

Faculty/University:

Faculty/University:

Appointed since:

**Christianne de Poot** 

Criminalistics

School of Criminology/

**VU University** 

June 1st, 2016

# What is your passion and ambition in forensic science?

The aim of our research is to improve the reconstruction of criminal offenses. Due to technological developments, the possibilities to analyze traces found at the crime scene to reconstruct what may have happened is constantly improving. Due to better and faster analysis the possible causes underlying perceived traces can be derived with increasing precision. However, to take full advantage of the opportunities of these technologies, additional knowledge is needed. Knowledge on how crimes are committed and where possible traces could be found, on the possibilities to distinguish crimerelated traces from traces that are not related to the crime, on the perception, interpretation and decisionmaking processes of professionals in the criminal justice system, and on communication processes between professionals in this field. It is my passion to do research and gain insight in this fascinating field of research





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within an inspiring multidisciplinary research team, in which students and researchers from different disciplines as well as professionals are involved. My ambition is to increase our knowledge in this field and to use this knowledge to improve the criminal investigation process.

## What achievements are you most proud of?

The forensic field is broad and multidisciplinary. Our ambitions can only be achieved if we conduct our research in collaboration with researchers and experts from various research areas and with professionals working in this field. I am proud that we managed to form a research group with PhD students and researchers from the Netherlands and abroad, and that we are able to work closely together with professionals, both in the Netherlands and abroad. Due to the creativity and perseverance of our PhD students we formed partnerships with researchers from John Jay College of Criminal Justice and the University of Portsmouth, and we were able to use detectives from the Dutch Police, the NYPD and the British Police as

participants in our studies. And thanks to the dedication of our PhD students and the help of our colleagues from the NFI, the TU Delft, the HvA and the Police Academy, we were able to collect huge amounts of data at Lowlands. These examples demonstrate the power of collaboration.

# What is the added value for the CLHC for you as a professor in forensic science?

The CLHC is an important network in which scientific findings can be shared, connections can be made with other researchers and professionals, and in which inspiring research methods and research findings can be discussed. The courses offered by the CLHC are very valuable for our PhD students, and the meetings organized by the CLHC are inspiring and offer many opportunities for discussion and for collaborations with partners in the field. Next to that, it is good and it is fun to have the opportunity to talk to researchers and professionals in an informal setting and to maintain close contact with them.

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Name: Udo Reijnders
Special chair: Forensic Medicine

Faculty/University: Academic Medical Center/

**University of Amsterdam** 

Appointed since: November 1st, 2015

# What is your passion and ambition in forensic science?

My passion is to make all medical professionals aware of the importance of the forensic aspects in their work and to instruct them how to deal with those aspects.

## What achievements are you most proud of?

I am proud of the substantial and diverse research program that has been established in the forensic medicine community in the Netherlands.

# What is the added value for the CLHC for you as a professor in forensic science?

The added value for my work is twofold, first the CLHC provides opportunities for interdisciplinary collaborations and second the CLHC makes the international community more aware of the forensic science and medicine endeavours in the Netherlands. This provides opportunities for international collaboration.

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# Colophon

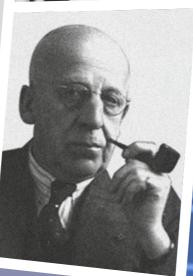
#### Co van Ledden Hulsebosch Center

Amsterdam Center for Forensic Science and Medicine

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September 2017







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