

143<sup>rd</sup> Conference  
**Scientific Federation**



3<sup>rd</sup> World Conference and Exhibition on  
**Forensic Science**

June 03-04, 2019 at Berlin, Germany



**Scientific Federation**

Panjagutta, Hyderabad, Telangana-500082, India



## ABOUT SCIENTIFIC FEDERATION

Scientific Federation is expert-driven and initiated to organize and facilitate proficient international scientific conferences worldwide associating the world class researchers. Scientific Federation is establishing outstanding and direct communication between the researchers whether they are working in the similar field or interdisciplinary research activities. Scientific Federation provides an international forum for the appearance and discussions on science, medical, clinical, technology, engineering, life sciences and their related researches. Meet Inspiring Speakers and Experts at our universal meetings inclusive all scientific conferences, workshops and symposiums annually on Science, Technology, Medical, Pharma, Clinical, Engineering and Business. Scientific Federation provides information, solutions to enhance the performance and progress of science, medical, health, clinical, engineering and technology professionals, and is empowering them to make better decisions, deliver better care, and sometimes makes groundbreaking discoveries, that advance the boundaries of knowledge and human progress.

## WHO WE ARE?

We are exploring research to the world through world-class scientists.

*"Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world."*

- Albert Einstein

Now-a-days, science and technology is growing rapidly in all aspects of medical, clinical, physics and pharma. In this regard, we are taking the step to transform the technology and research through the world class professionals, to get awareness worldwide by organizing the international conferences. Which may lead to maintain peaceful collaboration between the countries.

Our devoted team is proficient to organize the international conferences, and they are having much experience and expertise in this aspect.

## WHAT WE DO?

Scientific Federation was established with an aim to organize standard and productive conferences across the globe to bring world class researchers on unique platform and to explore the interdisciplinary research activities. Scientific Federation promote discussions and free exchange of innovative thoughts at the research frontiers of the science, medical, health, clinical, engineering and technology.

We promise that every conference is significant for our partners, professionals attending, as well as the sponsors and the associations. Scientific Federation collaboration ensures responsibility to the peak standards of service, punctual delivery, reliability and open communication.

Scientific Federation Conferences provides a valuable means of disseminating information and ideas in a way that cannot be achieved through the usual channels of communication and presentations at large scientific meetings. Team devoted to Scientific Federation, offers expertise with broad environment familiarity and associations with an array of convention centers, vendors, and hotel chains to contribute to your core. Scientific Federation encourage and promotes organizations of all types and sizes.

To contact Scientific Federation Email us at ([contact@scientificfederation.com](mailto:contact@scientificfederation.com))



## **WHY SCIENTIFIC FEDERATION?**

Scientific Federation conferences are covering a wide range of research in the fields of Science, Technology, Medical, Pharma, Clinical and Engineering. Attending a Scientific Federation Conferences give immense access to ground-breaking research presentations and discussions. The informal atmosphere and smaller size of conferences provides the best break to develop collaborations, get innovative ideas and opportunity for your own work - and plan for the subsequent stage of your scientific career.

All researchers, including post docs and graduate students, are encouraged to attend Scientific Federation conferences in their respective research field. All conferences offer the opportunity to exploit your knowledge by submitting a poster for the poster sessions. B2B meetings will be arranged during the conference time and this is the best platform to develop new partnership & collaborations worldwide.

## **FOR ATTENDEES**

Thank you! We are pleased for joining us at a Scientific Federation Conferences.

Your meeting was planned by devoted volunteers and Scientific Federation staff. We have worked hard to make it the most tremendous conference you attend this year! During the time period, you will have lot of time for networking and recreation with members of Scientific Federation attendees. All sessions are informal and intended to provide abundant time for discussion.

## **SCIENTIFIC FEDERATION MEETINGS ARE**

- Forums to discuss pre-publication research at the forefront of your field
- Held in isolated locations to diminish diversions and exploit time for debate and networking

A detailed program as well as information about the venue, travel, poster guidelines, and other details of your meeting can be accessible on our website. Refer respective conference site with your research interests. For any further queries you can directly contact through email to the respective conference secretary.

## **SCIENTIFIC FEDERATION MISSION**

Our Mission is to bring inspiration and innovation to every researcher in the world. We create a platform to interact and share their research. We will be a destination for researchers and maintain a pleasant relationship.

## **SCIENTIFIC FEDERATION VISION**

Our vision is to create a home environment for researchers across the globe.

## **ASSOCIATIONS/COLLABORATIONS**

- Exploring and visualize worldwide
- A great opportunity to network with your peers
- A way to interact with world class professionals
- The opportunity to expand collaboration
- Amplified trademark awareness through an additional channel
- Closer business relationships
- Providing advantages to the members through a variety of first-rate organizations to connect to the world



*143<sup>rd</sup> Scientific Federation  
Conference*

3<sup>rd</sup> World Conference and Exhibition on

# Forensic Science

June 03-04, 2019 at Berlin, Germany

## Previous & Upcoming Conferences



## 2018 Conferences

February
<b>3rd Global Summit and Expo on Dental &amp; Oral Diseases</b> February 26-27, 2018 Abu Dhabi, UAE
<b>Global Summit on Chemistry &amp; Chemical Engineering</b> February 26-27, 2018 Abu Dhabi, UAE
<b>International Conference &amp; Expo on Aerospace &amp; Aeronautical Engineering</b> February 26-27, 2018 Abu Dhabi, UAE
March
<b>3rd World Congress &amp; Expo on Pharmaceuticals &amp; Drug Delivery Systems</b> March 19-20, 2018 London, UK
<b>2nd Global Conference and Expo on Vaccines Research</b> March 19-20, 2018 London, UK
<b>2nd World Congress on Public Health and Health Care Management</b> March 19-20, 2018 London, UK
April
<b>4th Global Nanotechnology Congress and Expo</b> April 16-18, 2018 Dubai, UAE
<b>World Congress on Mechanical and Mechatronics Engineering</b> April 16-17, 2018 Dubai, UAE
<b>World Congress &amp; Expo on Oil, Gas &amp; Petroleum Engineering</b> April 16-17, 2018 Dubai, UAE
<b>World Summit on Cancer Research &amp; Therapy</b> April 19-21, 2018 Dubai, UAE
<b>International Summit on Dermatology</b> April 19-20, 2018 Dubai, UAE
<b>International Meeting on Cosmetology &amp; Trichology</b> April 19-20, 2018 Dubai, UAE
May
<b>2nd World Congress on Cell Science and Molecular Biology</b> May 21-22, 2018 Valencia, Spain
<b>International Hematologists Summit</b> May 21-22, 2018 Valencia, Spain
<b>Annual International Pathology Conference</b> May 21-22, 2018 Valencia, Spain
<b>2nd International Conference on Women Health and Breast Cancer</b> May 24-25, 2018 Valencia, Spain
<b>2nd Global Summit on Diabetes and Endocrinology</b> May 24-25, 2018 Valencia, Spain
<b>2nd Global Summit on Nutritional Science &amp; Food Chemistry</b> May 24-25, 2018 Valencia, Spain
June
<b>2nd World Conference and Exhibition on Forensic Science</b> June 11-12, 2018 Rome, Italy
<b>2nd World Congress on Surgery &amp; Anesthesia</b> June 11-12, 2018 Rome, Italy
<b>World Summit on Toxicology</b> June 11-12, 2018 Rome, Italy

<b>2nd World Congress and Expo Traditional &amp; Alternative Medicine</b> June 14-16, 2018 Rome, Italy
<b>2nd Global Summit &amp; Expo on Laser Optics &amp; Photonics</b> June 14-16, 2018 Rome, Italy
<b>3rd Global Congress &amp; Expo on Materials Science &amp; Engineering</b> June 14-16, 2018 Rome, Italy
<b>3rd International Congress &amp; Expo on Biotechnology and Bioengineering</b> June 25-26, 2018 Kuala Lumpur, Malaysia
July
<b>World Conference &amp; Expo on Biomedical Engineering</b> July 16-17, 2018 Miami, USA
<b>Metabolomics Global Summit</b> July 16-17, 2018 Miami, USA
<b>World Congress on Medicine and Medical Science</b> July 16-17, 2018 Miami, USA
<b>2nd International Conference &amp; Expo on Green Chemistry and Engineering</b> July 23-24, 2018 Barcelona, Spain
<b>World Conference on Analytical &amp; Bioanalytical Chemistry</b> July 23-24, 2018 Barcelona, Spain
<b>Global Summit on Stem Cell &amp; Tissue Engineering</b> July 23-24, 2018 Barcelona, Spain
<b>International Conference on Computer Science &amp; Cloud Computing</b> July 26-27, 2018 Barcelona, Spain
<b>World Conference on Robotics &amp; Artificial Intelligence</b> July 26-27, 2018 Barcelona, Spain
<b>International Conference on Electronics &amp; Electrical Engineering</b> July 26-27, 2018 Barcelona, Spain
<b>Global Conference on Magnetism and Magnetic Materials</b> July 23-25, 2018 Osaka, Japan
<b>International Conference on Atomic &amp; Nuclear Physics</b> July 23-25, 2018 Osaka, Japan
<b>World Congress &amp; Expo on Chemical Engineering &amp; Catalysis</b> July 23-25, 2018 Osaka, Japan
August
<b>International Congress and Expo on Agriculture &amp; Horticulture</b> August 13-14, 2018 Amsterdam, Netherlands
<b>International Summit on Fisheries &amp; Aquaculture</b> August 13-14, 2018 Amsterdam, Netherlands
<b>International Conference on Earth Science &amp; Geo Science</b> August 13-14, 2018 Amsterdam, Netherlands
<b>2nd International Congress and Exhibition on Pharmacy</b> August 20-21, 2018 Mahsa University, Malaysia
<b>4th International Congress on Dentistry &amp; Prosthodontics</b> August 20-21, 2018 Mahsa University, Malaysia
<b>Global Conference on Physiotherapy</b> August 20-21, 2018 Mahsa University, Malaysia

<b>International Conference on Semiconductors, Optoelectronics and Nanostructures</b> August 20-21, 2018 Paris, France	<b>3rd Global Summit on Obesity &amp; Diet Management</b> October 18-20, 2018 Amsterdam, Netherlands
<b>International Congress and Expo on Flu Science &amp; Infectious Diseases</b> August 20-21, 2018 Paris, France	<b>3rd World Congress and Expo on Immunology</b> October 18-20, 2018 Amsterdam, Netherlands
<b>International Conference on Medicinal Chemistry &amp; Drug Design</b> August 20-21, 2018 Paris, France	<b>Global Summit on Occupational Health &amp; Safety</b> October 18-20, 2018 Amsterdam, Netherlands
<b>World Congress on Gerontology &amp; Palliative Care</b> August 23-24, 2018 Paris, France	<b>3rd World Conference &amp; Expo on Petrochemistry &amp; Natural Resources</b> October 22-23, 2018 Prague, Czech Republic
<b>International Conference on Alzheimer's Diseases &amp; Psychology</b> August 23-24, 2018 Paris, France	<b>3rd International Conference on Biopolymers &amp; Polymer Chemistry</b> October 22-23, 2018 Prague, Czech Republic
<b>International Conference on Addiction Therapy &amp; Clinical Reports</b> August 23-24, 2018 Paris, France	<b>International Congress on Urban &amp; Civil Engineering</b> October 22-23, 2018 Prague, Czech Republic
<b>September</b>	<b>2nd World Summit and Expo on Food Technology &amp; Probiotics</b> October 25-26, 2018 Prague, Czech Republic
<b>2nd International Conference &amp; Expo on HIV &amp; AIDS</b> September 17-18, 2018 Toronto, Canada	<b>International Summit on Microbiology &amp; Parasitology</b> October 25-26, 2018 Prague, Czech Republic
<b>2nd World Congress on Clinical Research &amp; Biomarkers</b> September 17-18, 2018 Toronto, Canada	<b>Global Conference on Plant Biology</b> October 25-26, 2018 Prague, Czech Republic
<b>International Conference on Pharmacognosy &amp; Pharmacovigilance</b> September 17-18, 2018 Toronto, Canada	<b>November</b>
<b>World Congress on Gynecology &amp; Obstetrics</b> September 20-21, 2018 Toronto, Canada	<b>5th World Congress on Nursing &amp; Healthcare</b> November 12-14, 2018 Toronto, Canada
<b>2nd International Congress and Expo on Cardiology</b> September 20-21, 2018 Toronto, Canada	<b>3rd World Congress &amp; Expo on Dementia &amp; Neuroscience</b> November 12-14, 2018 Toronto, Canada
<b>2nd International Conference on Nephrology</b> September 20-21, 2018 Toronto, Canada	<b>3rd Global Summit &amp; Expo on Materials, Photonics &amp; Optical Instruments</b> November 12-14, 2018 Toronto, Canada
<b>4th International Congress &amp; Expo on Biotechnology and Genetic Engineering</b> September 24-25, 2018 Madrid, Spain	<b>2nd International Congress on Gastroenterology &amp; Hepatology</b> November 19-20, 2018 Houston, USA
<b>International Conference on Respiratory Medicine &amp; Pulmonology</b> September 24-25, 2018 Madrid, Spain	<b>2nd Global Summit in Otolaryngology</b> November 19-20, 2018 Houston, USA
<b>World Congress on Rheumatology &amp; Orthopedics</b> September 24-25, 2018 Madrid, Spain	<b>2nd Global Summit and Expo on Proteomics</b> November 19-20, 2018 Houston, USA
<b>Global Summit on Physics</b> September 27-28, 2018 Madrid, Spain	<b>2nd International Conference on Renewable &amp; Non Renewable Energy Sources</b> November 22-23, 2018 Houston, USA
<b>World Congress on Quantum and Nuclear Engineering</b> September 27-28, 2018 Madrid, Spain	<b>2nd International Conference on Ophthalmology</b> November 22-23, 2018 Houston, USA
<b>Global Summit on Geological and Environmental Engineering</b> September 27-28, 2018 Madrid, Spain	<b>2nd International Congress and Expo on Bacteriology</b> November 22-23, 2018 Houston, USA
<b>October</b>	<b>December</b>
<b>2nd Global Conference and Expo on Applied Science, Engineering and Technology</b> October 15-17, 2018 Amsterdam, Netherlands	<b>5th Global Nanotechnology Congress and Expo</b> December 03-05, 2018 Valencia, Spain
<b>2nd International Conference and Expo on Condensed Matter Physics</b> October 15-17, 2018 Amsterdam, Netherlands	<b>Global Biofuels &amp; Bioenergy Congress &amp; Expo</b> December 03-05, 2018 Valencia, Spain
<b>4th Global Congress &amp; Expo on Materials Science &amp; Nanoscience</b> October 15-17, 2018 Amsterdam, Netherlands	<b>World Congress on Waste Management &amp; Recycling</b> December 03-04, 2018 Valencia, Spain
	<b>3rd Global Virology Congress &amp; Expo</b> December 06-08, 2018 Valencia, Spain
	<b>5th World Congress and Expo on Oncology &amp; Radiology</b> December 06-08, 2018 Valencia, Spain
	<b>Global Conference on Global Warming</b> December 06-07, 2018 Valencia, Spain

## 2019 Conferences

February	June
<b>5th Global Summit and Expo on Dental &amp; Oral Diseases</b> February 18-19, 2019 Frankfurt, Germany	<b>3rd International Conference on Women Health and Breast Cancer</b> May 30-31, 2019 Nice, France
<b>2nd Global Summit on Chemistry &amp; Chemical Engineering</b> February 18-19, 2019 Frankfurt, Germany	<b>3rd Global Summit on Diabetes and Endocrinology</b> May 30-31, 2019 Nice, France
<b>2nd International Conference &amp; Expo on Aerospace &amp; Aeronautical Engineering</b> February 18-19, 2019 Frankfurt, Germany	<b>2nd International Hematologists Summit</b> May 30-31, 2019 Nice, France
March	June
<b>4th World Congress &amp; Expo on Pharmaceuticals &amp; Drug Delivery Systems</b> March 25-26, 2019 Milan, Italy	<b>3rd World Conference and Exhibition on Forensic Science</b> June 03-04, 2019 Berlin, Germany
<b>3rd Global Conference and Expo on Vaccines Research &amp; Development</b> March 25-26, 2019 Milan, Italy	<b>3rd World Congress on Surgery &amp; Anesthesia</b> June 03-04, 2019 Berlin, Germany
<b>2nd International Summit on Dermatology</b> March 25-26, 2019 Milan, Italy	<b>2nd World Summit on Toxicology</b> June 03-04, 2019 Berlin, Germany
<b>World Congress on Mechanical, Metallurgy and Materials Science</b> March 28-29, 2019 Milan, Italy	<b>3rd World Congress and Expo Traditional &amp; Alternative Medicine</b> June 06-08, 2019 Berlin, Germany
<b>Global Conference on Carbon Nanotubes and Graphene Technologies</b> March 28-29, 2019 Milan, Italy	<b>World Congress &amp; Expo on Sports &amp; Emergency Medicine</b> June 06-08, 2019 Berlin, Germany
<b>5th World Congress &amp; Expo on Oil, Gas &amp; Petroleum Engineering</b> March 28-29, 2019 Milan, Italy	<b>2nd Global Summit on Stem Cell &amp; Tissue Engineering</b> June 06-08, 2019 Berlin, Germany
April	June
<b>6th Global Nanotechnology Congress and Expo</b> April 15-17, 2019 Dubai, UAE	<b>5th Global Congress &amp; Expo on Materials Science &amp; Engineering</b> June 10-12, 2019 Osaka, Japan
<b>4th Global Summit &amp; Expo on Laser Optics &amp; Photonics</b> April 15-17, 2019 Dubai, UAE	<b>2nd World Conference on Robotics &amp; Artificial Intelligence</b> June 10-12, 2019 Osaka, Japan
<b>2nd World Congress on Mechanical and Mechatronics Engineering</b> April 15-17, 2019 Dubai, UAE	<b>3rd Global Summit on Nutritional Science &amp; Food Chemistry</b> June 10-12, 2019 Osaka, Japan
<b>6th World Summit on Cancer Research &amp; Therapy</b> April 19-20, 2019 Dubai, UAE	<b>5th International Congress &amp; Expo on Biotechnology and Bioengineering</b> June 17-18, 2019 London, UK
<b>3rd World Congress on Public Health and Health Care Management</b> April 19-20, 2019 Dubai, UAE	<b>3rd Global Summit on Pediatrics &amp; Neonatology</b> June 17-18, 2019 London, UK
<b>2nd International Meeting on Cosmetology &amp; Trichology</b> April 19-20, 2019 Dubai, UAE	<b>7th World Congress on Nursing &amp; Healthcare</b> June 17-18, 2019 London, UK
May	July
<b>3rd World Congress on Cell Science and Molecular Biology</b> May 13-14, 2019 Kuala Lumpur, Malaysia	<b>2nd World Conference &amp; Expo on Biomedical Engineering</b> July 08-09, 2019 Las Vegas, USA
<b>2nd Annual International Conference on Pathology and Case Reports</b> May 13-14, 2019 Kuala Lumpur, Malaysia	<b>2nd Global Summit on Metabolomics</b> July 08-09, 2019 Las Vegas, USA
<b>Global Congress &amp; Expo on Biomaterials</b> May 13-14, 2019 Kuala Lumpur, Malaysia	<b>2nd World Congress on Medicine and Medical Science</b> July 08-09, 2019 Las Vegas, USA
	<b>3rd International Conference &amp; Expo on Green Chemistry and Engineering</b> July 11-12, 2019 Las Vegas, USA
	<b>2nd World Conference on Analytical &amp; Bioanalytical Chemistry</b> July 11-12, 2019 Las Vegas, USA
	<b>4th International Conference on Biopolymers &amp; Polymer Chemistry</b> July 11-12, 2019 Las Vegas, USA
	<b>2nd International Conference on Computer Science &amp; Cloud Computing</b> July 22-23, 2019 Rome, Italy
	<b>International Conference on Oceanography &amp; Marine Science</b> July 22-23, 2019 Rome, Italy

<p><b>2nd International Conference on Electronics &amp; Electrical Engineering</b> July 22-23, 2019 Rome, Italy</p>	<p><b>2nd World Congress on Gynecology &amp; Obstetrics</b> September 19-20, 2019 Miami, USA</p>	
<p><b>2nd Global Conference on Magnetism and Magnetic Materials</b> July 25-26, 2019 Rome, Italy</p>	<p><b>3rd International Congress and Expo on Cardiology &amp; Hypertension</b> September 19-20, 2019 Miami, USA</p>	
<p><b>2nd International Conference on Atomic &amp; Nuclear Physics</b> July 25-26, 2019 Rome, Italy</p>	<p><b>4th World Congress &amp; Expo on Public Health, Epidemiology and Nutrition</b> September 19-20, 2019 Miami, USA</p>	
<p><b>2nd World Congress &amp; Expo on Chemical Engineering &amp; Catalysis</b> July 25-26, 2019 Rome, Italy</p>	<p><b>7th International Congress &amp; Expo on Biotechnology and Genetic Engineering</b> September 23-24, 2019 Paris, France</p>	
<p><b>2nd World Congress &amp; Expo on Chemical Engineering &amp; Catalysis</b> July 25-26, 2019 Rome, Italy</p>	<p><b>2nd International Conference on Respiratory Medicine &amp; Pulmonology</b> September 23-24, 2019 Paris, France</p>	
<b>August</b>		
<p><b>2nd International Congress and Expo on Agriculture &amp; Horticulture</b> August 12-13, 2019 Prague, Czech Republic</p>	<p><b>2nd World Congress on Rheumatology &amp; Orthopedics</b> September 23-24, 2019 Paris, France</p>	
<p><b>2nd International Summit on Fisheries &amp; Aquaculture</b> August 12-13, 2019 Prague, Czech Republic</p>	<p><b>2nd Global Summit on Physics</b> September 26-27, 2019 Paris, France</p>	
<p><b>2nd International Conference on Earth Science &amp; Geo Science</b> August 12-13, 2019 Prague, Czech Republic</p>	<p><b>2nd World Congress on Quantum and Nuclear Engineering</b> September 26-27, 2019 Paris, France</p>	
<p><b>3rd International Congress and Exhibition on Pharmacy</b> August 15-16, 2019 Prague, Czech Republic</p>	<p><b>2nd Global Summit on Geological and Environmental Engineering</b> September 26-27, 2019 Paris, France</p>	
<p><b>International Congress and Exhibition on Industrial and Manufacturing Engineering</b> August 15-16, 2019 Prague, Czech Republic</p>	<b>October</b>	
<p><b>2nd Global Conference on Physiotherapy</b> August 15-16, 2019 Prague, Czech Republic</p>	<p><b>3rd Global Conference and Expo on Applied Science, Engineering and Technology</b> October 07-09, 2019 Dubai, UAE</p>	
<p><b>2nd International Conference on Semiconductors, Optoelectronics and Nanostructures</b> August 19-20, 2019 Barcelona, Spain</p>	<p><b>3rd International Conference and Expo on Condensed Matter Physics</b> October 07-09, 2019 Dubai, UAE</p>	
<p><b>2nd International Congress and Expo on Flu Science &amp; Infectious Diseases</b> August 19-20, 2019 Barcelona, Spain</p>	<p><b>6th Global Congress &amp; Expo on Materials Science &amp; Nanoscience</b> October 07-09, 2019 Dubai, UAE</p>	
<p><b>2nd International Conference on Medicinal Chemistry &amp; Drug Design</b> August 19-20, 2019 Barcelona, Spain</p>	<p><b>4th Global Summit on Obesity &amp; Diet Management</b> October 11-12, 2019 Dubai, UAE</p>	
<p><b>6th International Congress &amp; Expo on Biotechnology and Nanotechnology</b> August 22-23, 2019 Barcelona, Spain</p>	<p><b>4th World Congress and Expo on Immunology</b> October 11-12, 2019 Dubai, UAE</p>	
<p><b>2nd International Conference on Alzheimer's Diseases &amp; Psychology</b> August 22-23, 2019 Barcelona, Spain</p>	<p><b>2nd Global Summit on Occupational Health &amp; Safety</b> October 11-12, 2019 Dubai, UAE</p>	
<p><b>2nd International Conference on Addiction Therapy &amp; Clinical Reports</b> August 22-23, 2019 Barcelona, Spain</p>	<p><b>International Conference on Infrastructure and Construction</b> October 11-12, 2019 Dubai, UAE</p>	
<b>September</b>		
<p><b>4th International Conference &amp; Expo on HIV &amp; AIDS</b> September 16-17, 2019 Miami, USA</p>	<p><b>International Conference on Textile Engineering</b> October 21-22, 2019 Bangkok, Thailand</p>	
<p><b>3rd World Congress on Clinical Research &amp; Biomarkers</b> September 16-17, 2019 Miami, USA</p>	<p><b>4th World Congress and Expo Traditional Medicine &amp; Herbals</b> October 21-22, 2019 Bangkok, Thailand</p>	
<p><b>2nd International Conference on Pharmacognosy &amp; Pharmacovigilance</b> September 16-17, 2019 Miami, USA</p>	<p><b>2nd International Congress on Urban &amp; Civil Engineering</b> October 21-22, 2019 Bangkok, Thailand</p>	
	<p><b>4th World Summit &amp; Expo on Food Technology &amp; Probiotics</b> October 24-25, 2019 Bangkok, Thailand</p>	
	<p><b>2nd International Summit on Microbiology &amp; Parasitology</b> October 24-25, 2019 Bangkok, Thailand</p>	
	<p><b>2nd Global Conference on Plant Biology</b> October 24-25, 2019 Bangkok, Thailand</p>	



November
<b>4th World Congress &amp; Expo on Dementia &amp; Neuroscience</b> November 04-05, 2019 Kuala Lumpur, Malaysia
<b>3rd International Conference on Renewable &amp; Non Renewable Energy Sources</b> November 04-05, 2019 Kuala Lumpur, Malaysia
<b>5th Global Summit &amp; Expo on Materials, Photonics &amp; Optical Instruments</b> November 04-05, 2019 Kuala Lumpur, Malaysia
<b>3rd International Congress on Gastroenterology &amp; Hepatology</b> November 18-19, 2019 Dubai, UAE
<b>3rd Global Summit in Otolaryngology</b> November 18-19, 2019 Dubai, UAE
<b>3rd Global Summit and Expo on Proteomics</b> November 18-19, 2019 Dubai, UAE
<b>8th World Congress on Nursing &amp; Healthcare</b> November 21-22, 2019 Dubai, UAE

<b>3rd International Conference on Ophthalmology</b> November 21-22, 2019 Dubai, UAE
<b>3rd International Congress and Expo on Bacteriology</b> November 21-22, 2019 Dubai, UAE
December
<b>7th Global Nanotechnology Congress and Expo</b> December 02-04, 2019 Kuala Lumpur, Malaysia
<b>2nd Global Biofuels &amp; Bioenergy Congress &amp; Expo</b> December 02-04, 2019 Kuala Lumpur, Malaysia
<b>2nd World Congress on Waste Management &amp; Recycling</b> December 02-04, 2019 Kuala Lumpur, Malaysia
<b>4th Global Virology Congress &amp; Expo</b> December 06-07, 2019 Kuala Lumpur, Malaysia
<b>7th World Congress and Expo on Oncology &amp; Radiology</b> December 06-07, 2019 Kuala Lumpur, Malaysia
<b>2nd Global Conference on Global Warming &amp; Climate Change</b> December 06-07, 2019 Kuala Lumpur, Malaysia

## 2020 Conferences

February	June
<b>5th World Congress &amp; Expo on Pharmaceuticals &amp; Drug Delivery Systems</b> February 10-11, 2020   Lisbon, Portugal	<b>2nd Global Congress &amp; Expo on Biomaterials</b> May 11-12, 2020   Manchester, UK
<b>4th Global Conference and Expo on Vaccines Research &amp; Development</b> February 10-11, 2020   Lisbon, Portugal	<b>4th International Conference on Women Health and Breast Cancer</b> May 14-15, 2020   Manchester, UK
<b>3rd International Summit on Dermatology</b> February 10-11, 2020   Lisbon, Portugal	<b>4th Global Summit on Diabetes and Endocrinology</b> May 14-15, 2020   Manchester, UK
<b>2nd World Congress on Mechanical, Metallurgy and Materials Science</b> February 13-14, 2020   Lisbon, Portugal	<b>3rd International Hematologists Summit</b> May 14-15, 2020   Manchester, UK
<b>2nd Global Conference on Carbon Nanotubes and Graphene Technologies</b> February 13-14, 2020   Lisbon, Portugal	<b>4th World Conference and Exhibition on Forensic Science</b> June 15-16, 2020   Valencia, Spain
<b>5th World Congress &amp; Expo on Oil, Gas &amp; Petroleum Engineering</b> February 13-14, 2020   Lisbon, Portugal	<b>5th World Congress on Surgery &amp; Anesthesia</b> June 15-16, 2020   Valencia, Spain
<b>6th Global Summit and Expo on Dental and Oral Health</b> February 17-18, 2020   Philadelphia, USA	<b>3rd World Summit on Toxicology &amp; Applied Pharmacology</b> June 15-16, 2020   Valencia, Spain
<b>3rd Global Summit on Chemistry &amp; Chemical Engineering</b> February 17-18, 2020   Philadelphia, USA	<b>Global Congress and Expo on Nano/Molecular Medicine and Engineering</b> June 18-19, 2020   Valencia, Spain
<b>3rd International Conference &amp; Expo on Aerospace &amp; Aeronautical Engineering</b> February 17-18, 2020   Philadelphia, USA	<b>3rd Global Summit on Stem Cell Biology &amp; Regenerative Medicine</b> June 18-19, 2020   Valencia, Spain
<b>9th World Congress on Nursing &amp; Healthcare</b> February 20-21, 2020   Philadelphia, USA	<b>3rd world conference on Robotics and Artificial Intelligence</b> June 18-19, 2020   Valencia, Spain
<b>5th International Conference &amp; Expo on HIV &amp; AIDS</b> February 20-21, 2020   Philadelphia, USA	<b>4th Global Summit on Nutritional Science &amp; Food Chemistry</b> June 22-23, 2020   Kuala Lumpur, Malaysia
<b>2nd International Conference &amp; Expo on Animal Science &amp; Veterinary Medicine</b> February 20-21, 2020   Philadelphia, USA	<b>8th International Congress &amp; Expo on Biotechnology and Bioengineering</b> June 22-23, 2020   Kuala Lumpur, Malaysia
April	July
<b>8th Global Nanotechnology Congress and Expo</b> April 13-14, 2020   Miami, USA	<b>4th Global Summit on Pediatrics &amp; Neonatology</b> June 22-23, 2020   Kuala Lumpur, Malaysia
<b>5th Global Summit &amp; Expo on Laser Optics &amp; Photonics</b> April 13-14, 2020   Miami, USA	<b>10th World Congress on Nursing &amp; Healthcare</b> June 25-26, 2020   Kuala Lumpur, Malaysia
<b>Global Congress and Expo on Solid State Devices and Materials</b> April 13-14, 2020   Miami, USA	<b>Global Congress on Infectious Diseases and Clinical Microbiology</b> June 25-26, 2020   Kuala Lumpur, Malaysia
<b>8th World Summit on Cancer Research &amp; Therapy</b> April 16-17, 2020   Miami, USA	<b>5th World Congress and Expo Traditional &amp; Alternative Medicine</b> June 25-26, 2020   Kuala Lumpur, Malaysia
<b>5th World Congress on Public Health and Health Care Management</b> April 16-17, 2020   Miami, USA	<b>3rd World Conference &amp; Expo on Biomedical Engineering</b> July 13-14, 2020   Houston, USA
<b>3rd International Meeting on Cosmetology &amp; Trichology</b> April 16-17, 2020   Miami, USA	<b>7th Global Congress and Expo on Materials Science and Engineering</b> July 13-14, 2020   Houston, USA
May	July
<b>4th World Congress on Cell Science and Molecular Biology</b> May 11-12, 2020   Manchester, UK	<b>3rd Global Summit on Metabolomics</b> July 13-14, 2020   Houston, USA
<b>3rd World Congress on Mechanical and Mechatronics Engineering</b> May 11-12, 2020   Manchester, UK	<b>4th International Conference &amp; Expo on Green Chemistry and Engineering</b> July 13-14, 2020   Houston, USA
	<b>3rd World Conference on Analytical &amp; Bioanalytical Chemistry</b> July 16-17, 2020   Houston, USA

<b>5th International Conference on Biopolymers &amp; Polymer Chemistry</b> July 16-17, 2020   Houston, USA
<b>3rd International Conference on Computer Science &amp; Cloud Computing</b> July 20-21, 2020   Las Vegas, USA
<b>2nd International Conference on Oceanography &amp; Marine Science</b> July 20-21, 2020   Las Vegas, USA
<b>3rd International Conference on Electronics &amp; Electrical Engineering</b> July 20-21, 2020   Las Vegas, USA
<b>3rd Global Conference on Magnetism and Magnetic Materials</b> July 23-24, 2020   Las Vegas, USA
<b>3rd International Conference on Atomic, Molecular and Optical Physics</b> July 23-24, 2020   Las Vegas, USA
<b>3rd World Congress &amp; Expo on Chemical Engineering &amp; Catalysis</b> July 23-24, 2020   Las Vegas, USA
<b>August</b>
<b>3rd International Conference on Earth Science &amp; Geo Science</b> August 10-11, 2020   Orlando, USA
<b>3rd International Summit on Fisheries &amp; Aquaculture</b> August 10-11, 2020   Orlando, USA
<b>3rd International Congress and Expo on Agriculture &amp; Horticulture</b> August 10-11, 2020   Orlando, USA
<b>4th International Congress and Exhibition on Pharmacy</b> August 13-14, 2020   Orlando, USA
<b>2nd International Congress and Exhibition on Industrial and Manufacturing Engineering</b> August 13-14, 2020   Orlando, USA
<b>3rd Global Conference on Physiotherapy</b> August 13-14, 2020   Orlando, USA
<b>3rd International conference on Bio Equivalence &amp; Bio Availability</b> August 17-18, 2020   Atlanta, USA
<b>3rd International Conference on Medicinal Chemistry &amp; Drug Design</b> August 17-18, 2020   Atlanta, USA
<b>Global Congress and Expo on Advanced Energy Materials</b> August 17-18, 2020   Atlanta, USA
<b>9th International Congress &amp; Expo on Biotechnology and Nanotechnology</b> August 20-21, 2020   Atlanta, USA
<b>3rd International Conference on Alzheimer's &amp; Parkinson's Diseases</b> August 20-21, 2020   Atlanta, USA
<b>3rd International Conference on Semiconductors, Optoelectronics and Nanostructures</b> August 20-21, 2020   Atlanta, USA
<b>September</b>
<b>6th International Conference &amp; Expo on HIV - AIDS &amp; Sexual Health</b> September 14-15, 2020   Vancouver, Canada

<b>4th World Congress on Clinical Research &amp; Biomarkers</b> September 14-15, 2020   Vancouver, Canada
<b>3rd International Conference on Herbalism &amp; Pharmacognosy</b> September 14-15, 2020   Vancouver, Canada
<b>3rd World Congress on Gynecology &amp; Obstetrics</b> September 17-18, 2020   Vancouver, Canada
<b>4th International Congress on Heart &amp; Cardiology</b> September 17-18, 2020   Vancouver, Canada
<b>6th World Congress &amp; Expo on Public Health, Epidemiology and Nutrition</b> September 17-18, 2020   Vancouver, Canada
<b>10th International Congress &amp; Expo on Bioscience and Biotechnology</b> September 21-22, 2020   Prague, Czech Republic
<b>6th Global Summit on Surgery &amp; Surgical Techniques</b> September 21-22, 2020   Prague, Czech Republic
<b>3rd World Congress on Rheumatology &amp; Orthopedics</b> September 21-22, 2020   Prague, Czech Republic
<b>3rd Global Summit on Physics</b> September 24-25, 2020   Prague, Czech Republic
<b>3rd World Congress on Quantum Mechanics and Nuclear Engineering</b> September 24-25, 2020   Prague, Czech Republic
<b>11th World Congress on Patient Care for Chronic Diseases</b> September 24-25, 2020   Prague, Czech Republic
<b>October</b>
<b>4th Global Conference and Expo on Applied Science, Engineering and Technology</b> October 12-13, 2020   Bangkok, Thailand
<b>4th International Conference and Expo on Condensed Matter Physics</b> October 12-13, 2020   Bangkok, Thailand
<b>5th Global Summit on Obesity &amp; Diet Management</b> October 12-13, 2020   Bangkok, Thailand
<b>3rd Global Summit on Occupational Health &amp; Safety</b> October 15-16, 2020   Bangkok, Thailand
<b>2nd International Conference on Infrastructure and Construction</b> October 15-16, 2020   Bangkok, Thailand
<b>2nd International Conference on Textile Engineering</b> October 15-16, 2020   Bangkok, Thailand
<b>6th World Congress and Expo Traditional Medicine &amp; Herbals</b> October 19-20, 2020   Lisbon, Portugal
<b>3rd International Congress on Urban &amp; Civil Engineering</b> October 19-20, 2020   Lisbon, Portugal
<b>4th World Congress and Expo Traditional Medicine &amp; Herbals</b> October 19-20, 2020   Lisbon, Portugal
<b>3rd International Congress on Urban &amp; Civil Engineering</b> October 19-20, 2020   Lisbon, Portugal
<b>4th World Summit and Expo on Food Technology &amp; Probiotics</b> October 19-20, 2020   Lisbon, Portugal
<b>3rd International Summit on Microbiology &amp; Parasitology</b> October 19-20, 2020   Lisbon, Portugal

<p><b>3rd Global Conference on Plant Biology</b> October 19-20, 2020   Lisbon, Portugal</p>
<p><b>8th Global Congress and Expo on Materials Science and Nanoscience</b> October 19-20, 2020   Lisbon, Portugal</p>
<p><b>5th World Congress and Expo on Immunology</b> October 19-20, 2020   Lisbon, Portugal</p>
<p><b>November</b></p>
<p><b>5th World Congress &amp; Expo on Dementia &amp; Neuroscience</b> November 16-17, 2020   Budapest, Hungary</p>
<p><b>4th International Conference on Renewable &amp; Non Renewable Energy Sources</b> November 16-17, 2020   Budapest, Hungary</p>
<p><b>6th Global Summit &amp; Expo on Materials, Photonics &amp; Optical Instruments</b> November 16-17, 2020   Budapest, Hungary</p>
<p><b>4th International Congress on Gastroenterology &amp; Hepatology</b> November 19-20, 2020   Budapest, Hungary</p>
<p><b>4th Global Summit in Otolaryngology</b> November 19-20, 2020   Budapest, Hungary</p>
<p><b>4th Global Summit and Expo on Proteomics</b> November 19-20, 2020   Budapest, Hungary</p>

<p><b>12th World Congress on Nursing &amp; Healthcare</b> November 23-24, 2020   Budapest, Hungary</p>
<p><b>4th International Conference on Ophthalmology</b> November 23-24, 2020   Budapest, Hungary</p>
<p><b>Global Congress on Polymer and Composite Materials</b> November 23-24, 2020   Budapest, Hungary</p>
<p><b>December</b></p>
<p><b>2nd Global Congress on Carbon</b> December 07-08, 2020   Bucharest, Romania</p>
<p><b>2nd Global Congress on Advanced Ceramics and Composite Materials</b> December 07-08, 2020   Bucharest, Romania</p>
<p><b>9th Global Nanotechnology Congress and Expo</b> December 07-08, 2020   Bucharest, Romania</p>
<p><b>5th Global Virology Congress &amp; Expo</b> December 07-08, 2020   Bucharest, Romania</p>
<p><b>9th World Congress and Expo on Oncology &amp; Radiology</b> December 07-08, 2020   Bucharest, Romania</p>
<p><b>3rd Global Conference on Global Warming &amp; Climate Change</b> December 07-08, 2020   Bucharest, Romania</p>







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3<sup>rd</sup> World Conference and Exhibition on

# Forensic Science

June 03-04, 2019 at Berlin, Germany

## Plenary Forum (Day 1)

# 3<sup>rd</sup> World Conference and Exhibition on Forensic Science



June 03-04, 2019 at Berlin, Germany



**Allan D. Cala**  
NSW, Australia

## Post Mortem Vitreous Electrolyte Testing-an aid to the Diagnosis of Drowning, in Both Salt and Fresh Water

Drowning is a common cause of death in Australia. It is usually a diagnosis of exclusion of other causes such as from trauma eg head injury whilst surfing, or from natural disease eg a “heart attack” whilst swimming. A very long coast line, many river systems, lakes, dams and pools, together with an agreeable climate make water activities such as swimming and fishing popular however often the hazards associated are not considered or ignored. Overseas visitors are over represented in mortality rates. A number of blood and other tests were proposed years ago to confirm a diagnosis of drowning however none have proved reliable or accurate. Post mortem vitreous electrolyte testing is a quick and easy test to perform at autopsy. It has been found after vitreous testing in many cases of suspected drowning that there is a significant increase of sodium and chloride levels above normal serum levels in salt water drowning, and a decrease in sodium and chloride levels in fresh water drowning. Vitreous humor fluid is stable for days after death and is not subject to the same decomposition changes that affect blood. Whilst not proposing this test replace the performance of an autopsy, it is considered a useful adjunct test in the diagnosis of drowning in both salt and fresh water.

### Biography

Cala is a forensic pathologist in Newcastle, Australia. He has been in the practice of forensic pathology for over 25 years and has done over 6000 Coronial autopsies. He has been interested in the subject of drowning deaths for many years and has published a number of recent articles on this subject.

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June 03-04, 2019 at Berlin, Germany



**Wilma Duijst**

Maastricht University, Netherlands

## The Forensic Medical Expert, a Blessing or a Curse?

The last 20 years the Netherlands have known several famous and less famous murder and rape cases in which medical experts played a significant role. In the 'Murder in Putten' the statement of the medical expert was crucial for convicting two men to the imprisonment of seven years. These men proved to be innocent. In 2011 a new trial led to the conviction of another man for 20 years of imprisonment (ECLI:NL:GHARN:2011: BU3933). The lawyer defended his client with the same arguments presented by the expert in the primary case. In another case in which death primarily appeared to be caused by a fall from the stairs, the reports and testimonies of two medical experts led to a conviction for murder (ECLI:NL:RBOVE:2014:2841). These experts funded their report on five color pictures presented by the forensic physician. In the Mitch Henriquez case, the reports of seven medical experts led to the total confusion of the court (ECLI:NL:RBDHA:2017:15095). Did Mitch Henriquez, who died after the arrest by the police, die because of asphyxia or because of the 'acute stress syndrome'?

The big problem for the experts in these three cases that they do not appear to know the limitations of their expertise and get into a personal struggle with the other expert. The presentation of the three cases will lead to an answer to the question 'How to recognize the real forensic medical expert'?

### Biography

Wilma Duijst is a professor in forensic medicine and medical criminal law at the Maastricht University in the Netherlands. She works as a forensic physician at the public health service in Zwolle and is a judge at the high court in Arnhem/Leeuwarden. She has published several books in the field of forensic medicine and medical criminal law and publishes in national and international medical and judicial journals.



# 3<sup>rd</sup> World Conference and Exhibition on Forensic Science



June 03-04, 2019 at Berlin, Germany



**Djalila Rahali**

RAKM-Conseil & IQRAA Private Educational Establishments, Algeria

## The Cyberpsychology of Cybeextremism: Detection and Analysis of E-Evidences in Cyber-Recruitment Process

Today extremist groups are using the power of internet to hack people's mental system for spreading out their ideologies or to recruit new members worldwide, to defend their cause or to commit crimes (real and cyber ones). They generally do it by manipulating minds through social engineering techniques and by optimizing the specificities of cyberspace like anonymity, online desinhibition, altruism etc., as described by cyberPsychology.

Because radicalization process passes by indoctrination, cyberExtremists, today, target their victims through social media platforms such as Facebook, Twitter and YouTube weaponizing information, culture, women, religion.. to recruit new soldiers ready to act as terrorists or cyberTerrorists: That is cyberRecruitment.

To incriminate a person or a group, investigators and police charged of cyberSecurity look first for digital traces as e-evidences. Forensic cyberPsychologists may help the court and juries in the analysis of e-evidences such as instant messages, text, emails and images referring to psychological and behavioral theories. By cyberProfiling perpetrators and their traces on different connected platforms, cyberPsychologists are also able to make the difference between pathological cyberBehaviors and normal/ conscious ones. In addition, they may help computer scientists to create new algorithms and landmarks to detect a cyberRecruitment temptation more effectively and more rapidly to prevent the constitution of new groups of extremists in a counterterrorism frame proceeding.

CyberExtremism, in all its types and natures, will be presented in a new way by Dr. Djalila Rahali a cyberPsychologist interested in cyberBehavior deviances.

### Biography

Dr. Djalila RAHALI is a Clinical CyberPsychologist, ex-ministers' advisor charged of e-communication (e-government project) and a researcher in Internet & New Technologies Deviances. She worked for 17 years in recruitment field for the 2nd big firm in her country (SONELGAZ) and is a member of the "Laboratory of Investigation Means and Therapeutic Techniques of Behavioral Disorders » at the University of Oran2 (Algeria). Rated TOP TEN 2018 of personalities contributing to the development of ICT & digitalization in her country (Algeria), she is also a consulting psychologist in "IQRAA" private educational establishments and a consultant in "RAKM-conseil" an algero-canadian cabinet. Her academic researches and practices include CyberPsychotherapy, CyberDelinquency, CyberCriminality and CyberBehaviors Deviances (addictions, hacking..). She developed three theories: "Hacking as an Addiction"; "Cyber Identity Personification", "The Rertual Space". She is author and speaker in the domains of cyberpsychology, digitalization and cybersafety.



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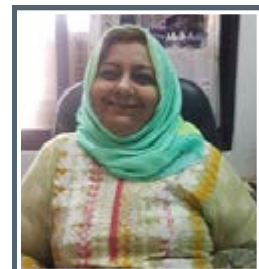
June 03-04, 2019 at Berlin, Germany

## Keynote Forum (Day 1)

# 3<sup>rd</sup> World Conference and Exhibition on Forensic Science



June 03-04, 2019 at Berlin, Germany



**Qudsia Hassan**

Ziauddin University, Pakistan

## Aspartic Acid Racemization with Correlation to Age: A Forensic Perspective

**Objective:** To estimate age through aspartic acid racemization of human dentin for forensic analysis, and to calculate the margin of error between chronological age and estimated age by racemization method.

**Study design:** Cross-sectional comparative study.

**Place and duration of study:** Dental Outpatients' Department, Ziauddin Hospital, Karachi, from 2011 to 2014.

**Methodology:** Patients from dental orthodontics department were selected. Verbal expressed consent was taken from the participants. Preliminary data was entered in a specially designed performa having name, chronological age, gender, socio-economic status. L and D ratio of aspartic acid were quantified in dentin for each tooth by High-Pressure Liquid Chromatography technique. Results of 100 samples with known age were used during study to estimate co-efficient of racemization. Regression equation was derived by plotting 85 samples of known age and KR as independent and dependent variables and least square equation was derived - Age = -4.391 +347.396 (co-efficient of racemization).

**Results:** The estimated co-efficient of determination was 0.74, meaning thereby that the regression equation was 74% correct for estimating age. The calculated correlation between chronological age and co-efficient of racemization was 0.834, which is interpreted as a very strong and positive correlation. The co-efficient of racemization increased with the age. The mean chronological age (38.44 ±13.22) years were statistically like the mean calibrated age (37.52 ±12.36) years. The median of actual and calibrated age was found to be 3.4 with inter-quantile value of 13. No statistically significant difference was observed among gender (p=0.837), or socioeconomic status (p=0.35).

**Conclusion:** Racemization of human dentin could be used as one of the reliable method for estimating age. HPLC is a reliable technique to estimate the co-efficient of racemization because it is highly reproducible, cost-effective and convenient. However, the procedure should be optimized and standardized within all laboratories for quality assurance.

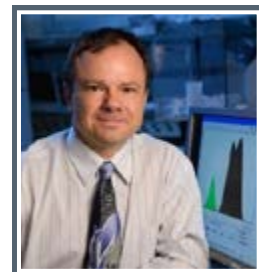
### Biography

Prof. Qudsia Hassan has completed her PhD in Forensic Odontology from Ziauddin University, Karachi, and is the first female PhD graduate in her field in Pakistan. She heads the Department of Forensic Medicine & Toxicology at Ziauddin University, a premier medical college. She has more than 15 published papers in various indexed journals and is also a reputable member of the Ethics Review Committee at Dr. Ziauddin Hospital.

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June 03-04, 2019 at Berlin, Germany



**James Cizdziel**

University of Mississippi, USA

## The Advent of 3D-Printing and Its Implications for Firearm Analysis: Characterization of Trace Evidence

Rapid advances in 3D-printing technology have created an emerging class of firearms that we know almost nothing about, forensically speaking. As the movement to self-manufacture firearms with 3D-printing technology grows, and as 3D-printed guns themselves become more functional and reliable, it is reasonable to assume that they will be increasingly used, especially by individuals who may have less access to traditional guns. Already 3D-printed guns have been shown to withstand repeated firing and have been found at crime scenes. Incidents involving 3D-printed guns can be expected to grow as the technology improves, costs decline, and as superior gun blueprints are posted on the Internet. Despite the need for the forensic science community to address this emerging class of firearms and the threats it poses, there have been little research and few scientific publications on physical and chemical trace evidence from 3D-printed guns. As the use of 3D-printed guns in crimes grows, criminal justice practitioners will need proven new forensic methods to analyze the particular types of evidence that these guns deposit at crime scenes. Here, we describe progress in manufacturing 3D-printed firearms and focus on what we know about them forensically. A brief look at their history, legality, and manufacture is followed by a review into the forensics, ballistics, and other evidence related to 3D-printed guns. We assess the current state of knowledge (or lack thereof) on physical and chemical trace evidence from 3D-printed guns. We highlight our own work with direct analysis in real time mass spectrometry (DART-MS) to detect and identify traces of polymer and organic gunshot residue (GSR) compounds on bullets and cartridge cases, and in GSR from 3D-printed guns. Finally, we discuss the potential of other analytical techniques that could be brought to bear on the problem.

### Biography

Dr. James Cizdziel is Associate Professor in the Department of Chemistry and Biochemistry at the University of Mississippi. He received degrees from the State University of New York at Buffalo (B.S. in Chemistry) and the University of Nevada, Reno (Ph.D. in Environmental Chemistry). He served as a National Research Council Postdoctoral Associate at the U.S. Environmental Protection Agency (EPA) and worked as Senior Scientist and Associate Research Professor at the Harry Reid Center for Environmental Studies at the University of Nevada, Las Vegas. Dr. Cizdziel's research interests are in the area of analytical, environmental, and forensic chemistry, including analytical method development, trace elemental analysis, and the biogeochemical cycling of mercury. He has been PI on grants from the U.S. National Science Foundation, EPA, and the Department of Energy. He has authored over 50 publications, and 6 students have received doctorates under his direction; several others have received M.S. degrees.





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## Scientific Sessions (Day 1)

**Chair**

Allan D. Cala, NSW, Australia

**Session Introduction**

**Title: Overview of the Methods for Visualization of Latent Fingerprints on Thermal Paper**  
Sasho Stojkovikj, Ss Cyril and Methodius University, Republic of Macedonia

**Title: New High-performance Liquid Chromatography Tandem Mass Spectrometry Technique Based on Derivatization for the Determination of Nerve Agents Intoxication Biomarkers**  
Timur Baygildiev, Lomonosov Moscow State University, Moscow

**Title: Studying of the Degradation Kinetics of Artificially Aged Handwritten Strokes Made with Ballpoint Pen Inks Using Chromatography Mass-Spectrometry**  
Igor Rodin, Lomonosov Moscow State University, Russian Federation

**Title: Personal Identification in Forensic Science**  
Petr Vrablic, Institute of Criminalistics, Czech Republic

**Title: Thermal Fingerprint Development**  
Martin Matloch, Institute of Criminalistics, Czech Republic

**Title: Postural or Positional Asphyxia in Old Age. Report of Twocases**  
Lorenzo Desinan, University of Udine, Italy

**Title: Homicide-Suicides in Friuli (Italy): A Retrospective Study (1993-2018)**  
Francesco Simonit, University of Trieste, Italy

## **Thermal Paper: An Overview of the Methods for Visualization of Latent Fingerprints**

Sasho Stojkovikj<sup>1</sup>, Slobodan Oklevski<sup>2</sup>, Om Prakash Jasuja<sup>3</sup> and Metodija Najdoski<sup>1</sup>

<sup>1</sup>Ss Cyril and Methodius University, Republic of Macedonia

<sup>2</sup>Ministry of Interior - Skopje, Republic of Macedonia

<sup>3</sup>Sanskriti University, India

Thermal paper is widely used for printing bills, ATM slips, invoices, receipts, faxes, medical recipes, tickets and etc. It presents a paper which is one-side coated with a thin thermal layer that contains leuco dyes, developers, and solvents with melting points in the interval of 45-65 °C. The printing, of numbers, letters, and symbols on this kind of paper, is achieved by applying precisely localized heat on its surface that leads to slight melting of the thermal layer thus inducing chemical reactions accompanied by color change.

The identification of latent fingerprints on thermal paper is important in forensic practice because there are possibilities when impressed latent fingerprints during illegal activities are connected with evidence like date, time, place and etc. (already printed on the paper). The reliable visualization of latent fingerprints on thermal paper is still challenging although there is a variety of known methods. These methods are classified in several different categories. One of the most informative classification is published by Fitzi et al. [1], where seven groups of methods are presented. Most of them include different variations of chemical treatment, but there are also some simpler ones that comprise of applying heat using thermal source. The most promising methods in terms of reliability, identification capacity, simplicity, time-consumption, cost-effectiveness, and their application under terrain conditions are the ones that are based on treating the thermal paper with fumes or gases.

[1] T. Fitzi, R. Fischer, S. Moret, A. Bécue, *J. Forensic Ident.* 64 (2014) 329–350.

### **Biography**

Sasho Stojkovikj has completed his BSc and MSc degrees from the Institute of Chemistry, Faculty of Natural Sciences and Mathematics, Ss Cyril and Methodius University in Skopje, Republic of Macedonia. He is a PhD student at the Freie Universität in Berlin, Germany and Scientific Associate in Helmholtz Zentrum Berlin für Materialien und Energie, working on Electrochemical conversion of carbon dioxide. He has published 4 papers in the field of material science, 2 papers in educational chemistry and one paper in the field of forensic sciences (design of chemical methods for visualization of latent fingerprints on cartidge cases).

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## New High-performance Liquid Chromatography Tandem Mass Spectrometry Technique Based on Derivatization for the Determination of Nerve Agents Intoxication Biomarkers

**Timur Baygildiev**

Lomonosov Moscow State University, Moscow

Sarin, soman, VX and VR are the most common representatives of the extremely dangerous and toxic class of nerve agents. In the environment and in humans or animals, these compounds hydrolyze rapidly to form isopropyl (iPMP), pinacolyl (PMP), ethyl (EMP) and isobutyl (iBMP) methylphosphonates, respectively. Subsequently, all alkyl methylphosphonates (AMP) are quite quickly convert into the final hydrolysis product, methylphosphonic acid (MPA). MPA is the most stable and long-lived marker of nerve agents, however, its determination does not allow to establish the specific type of chemical agent used. Alkyl methylphosphonates are less stable, but they can serve as markers for the use of a particular type of nerve agent, that may allow to determine the origin of the nerve agent used. Another important analogies of MPA are ethyl (EPA) and propylphosphonic acid (PPA), which may serve as a markers of novel nerve agents of second generation. Thus, to establish reliably the fact of using nerve agents, it is necessary to developed a technique for the simultaneous determination of alkyl phosphonic acids (APA) and AMP, which is not an easy task as these substances are very polar and have low retention on the reversed phase columns.

We developed an approach for the simultaneous determination of APA and AMP using combination of derivatization and reversed phase HPLC-MS/MS. For the derivatization p-methoxyphenacyl bromide was proposed. This agent may reacts with both APA, yielding mainly products by the two groups and AMP. For the optimization of the reaction conditions appropriate amounts of agent and catalyst, suitable values of time and temperature of the reaction were found. LC separation of the derivates were performed in the gradient elution mode. It was found that simultaneous MS detection of APA and AMP may be carried out only in the positive ESI mode. Very low detection limits (less than 1 ng/ mL) for most of APA and AMP were achieved in the multiple reaction monitoring mode. The developed approach was applied to the environmental and biological samples.

This work was supported by the Russian Foundation for Basic Research (Grant No. 18-33-20068 mol\_a\_ved).

### Biography

Timur Baygildiev in 2017 has completed his PhD from Lomonosov Moscow State University, Russia. He is the scientific researcher at the laboratory of chromatography of Lomonosov Moscow State University, Chemistry department. He has published more than 22 papers in reputed journals and is a winner of more than 3 awards for the scientific researches.

## **Studying of the Degradation Kinetics of Artificially Aged Handwritten Strokes Made with Ballpoint Pen Inks Using Chromatography Mass-Spectrometry**

**Igor Rodin**

Lomonosov Moscow State University, Russian Federation

In the judicial-investigative practice it is often necessary to establish the time of document's production as a whole or its parts. Solving this problem ultimately allows to find out the authenticity or counterfeit of document. In these purposes the law enforcement agencies, which appoint expert examination, raise the following questions before expert: how old is a document; when handwritten text, signatures, prints of seals or stamps were inserted in document; when document is made and by what device; what is the sequence of plotting of document's requisites?

Determination of document age is a difficult task of expert research due to the lack of a single universal method and scientifically based methodology. Therefore, solving this problem, the results of author-based, handwritten, technical and forensic examinations of documents using physical, physical-chemical and chemical research methods are used.

Also in judicial practice is not uncommon the problem of document falsification. Therefore, the question of studying the processes occurring during the artificial aging of document materials remains relevant. Thus, it is necessary to check the changes in the qualitative and quantitative values of the aging markers over time artificial impact on document. We carried out comparative analyzes of the kinetics of dye degradation processes depending on the different types of external effects on the document - ultraviolet radiation and the effects of high temperatures. A comparison was also made of the results obtained after intentional exposure with the data obtained after the natural storage of documents.

This work was supported by the Russian Foundation for Basic Research (Grant No. 17-03-00369) for Lomonosov Moscow State University.

### **Biography**

Igor Rodin has completed his PhD in 2009 from Lomonosov Moscow State University, Russia. He is head of chromatography mass-spectrometry group and full professor in Chemistry department of Lomonosov Moscow State University, Russia. He has published more than 90 papers in reputed journals.

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## **Personal Identification in Forensic Science**

**Petr Vrablic**

Institute of Criminalistics, Czech Republic

The most common methods of identification in forensic Science are Dactyloscopy (fingerprints) and Genetics (DNA). There is a dispute somewhere/sometimes. Who/What is better? Fingerprint identification or DNA analysis? Both have same benefits and drawbacks. Institute of Criminalistics of the Czech republic Police chose the cooperation between dactyloscopy and genetics, not the rivalry. Our goal is to make use of the best from both – fingerprints and DNA analysis. Interdisciplinary cooperation improves and helps both sides. The benefit of the chosen procedure. Better success in identification.

### **Biography**

Capt. Mgr. Petr Vrablic has completed his Bc (Bachelor of Science) at the University of West Bohemia in Pilsen, Czech Republic and master degree at the Charles University in Prague, Czech Republic. He is a forensic scientist in the Department of Latent Fingerprint Identification at the Institute of Criminalistics Police of the Czech Republic. He takes part in collaborative exercises of ENFSI.



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## Thermal Fingerprint Development

**Martin Matloch**

Institute of Criminalistics, Czech Republic

Thermal Fingerprint Development is a process in which a document is heated to an optimum temperature to induce a chemical reaction between a latent fingerprint and paper to produce a fluorescent by-product that is visible under blue or blue/green illumination if viewed through an appropriate filter. Latent fingerprints enhancement is carried out using a commercially available Thermal Fingerprint Developer (TFD-2) and subsequent visualisation by a blue or blue/green light source of the peak wave length of 420-470 nm (blue); 445-510 nm (blue-green). The Institute of Criminalistics Prague have tested most of paper material that is received for forensic examination like office paper, banknotes, Czech passports, many types of banknotes, envelopes, notebooks, water sprayed papers and papers submerged into the water and liquid Nitrogen by the TFD-2. The examinations of the paper substrates were carried out under different settings of the device (various temperature and conveyor speed). For comparison reasons, following the fingerprint enhancement using the TFD-2 device, also a fingerprint development method employing the Ninhydrin reagent was carried out. Quality evaluation of the individual samples visualized using a blue light source, green/blue source and, subsequently, the Ninhydrine or Oil Red-O reagent was performed. Examination results were recorded and compared. For the examination above, both fresh fingerprints and aged fingerprints (2 months to 10 years) were used. Based on the results of the still-ongoing research, methodology of efficient application of the TFD-2 device regarding the type of paper material and the age of fingerprints will be created.

### Biography

Martin Matloch has completed master degree at the Police Academy of the Czech Republic in Prague and doctoral studies at the Pan-European University in Bratislava, Slovakia. He is a forensic scientist in the Department of Latent Fingerprint Identification at the Institute of Criminalistics Prague. He takes part in collaborative exercises of ENFSI and in the research concerning thermal fingerprint development.

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June 03-04, 2019 at Berlin, Germany

## Postural or Positional Asphyxia in Old Age. Report of Twocases

**Lorenzo Desinan**

University of Udine, Italy

The definition of postural or positional asphyxia involves three main criteria: the victims must be found in a position that interferes with respiratory function; the inability of the person to escape this position must be explained; other causes of death must be excluded. According to literature, it is typically accidental.

**Case1:** a 74 years-old-female was found in her kitchen inside a woody-piece of furniture with a door on the superior surface, in a head-down position with legs outside.

On the body were found traumatic lesions due to structures of the piece of furniture; no signs of violence were observed. Cyanosis of the skin of the face was present. An autopsy was not ordered.

**Case2:** a 73 years-old-female was found wedged between the legs of a chair in a jack-knife position. Transverse groove marks were present on the back and on tights due to the elements of the chair; gripping bruises were present on superior limbsexplainable with attempts to help the victim. An autopsy was performed without evidence of other causes of death.

Both cases have strong circumstantial evidence of accidental death by positional asphyxia. The debilitated state of the patients, correlated with their old age, explains the impossibility to extricatethemselvesfrom the fatal position. The case subjected to autopsy fully satisfied the criterium of the absence of other causes of death.

### Biography

Lorenzo Desinan is assistant professor of Legal Medicine at the University of Udine.

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June 03-04, 2019 at Berlin, Germany

## Homicide-Suicides in Friuli (Italy): A Retrospective Study (1993-2018)

**Francesco Simonit**

University of Trieste, Italy

**M**urder-suicides are rare but dramatic events and they have a deep impact on the families of the victims and the society. All the cases of homicide-suicide at the Department of Medicine / Legal Medicine of the University of Udine from 1993 to 2018 were considered. Features of the victims and of the perpetrators, their relationship, place of death, suicide and homicide methods, autopsy and toxicological findings (when they were authorized by the persecutor) were analysed. 10 incidents and 23 victims were observed. All the perpetrators (n=10) were males (age 32-85), 1 reported a criminal record, 2 were depressed, 2/5 were under influence of alcohol. 10/13 victims were females (age 4-88), 3/6 took alcohol. 2 elderly women were affected by severe physical illness, they were killed by their husbands and these incidents resulted as “mercy killings”. Only in one case there was no familial relationship among the victim and the murder, in 4 cases there was a spousal bond and all the 3 cases involving more than 2 victims were familicide-suicides. 8/10 incidents occurred at home. 9/10 suicides and 9/13 homicides were committed using firearms. A case of complex suicide was highlighted. Results confirm the rarity of these events. The prevalence of the use of firearms, of male perpetrators and of female victims comply with previous studies, whereas parenting seems to be a risk factor. Amorous jealousy, financial problems and ailing health among elderly couples turned out as the main motives of these incidents.

### Biography

Francesco Simonit is a MD attending the post-graduation School in Forensic and Legal Medicine at the University of Trieste-Udine, Italy. Orazio Elia Sciarappa is the record manager at the Department of Legal Medicine at the University of Udine, Italy. Lorenzo Desinan is assistant professor of Legal Medicine at the University of Udine.



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## Plenary Forum (Day 2)

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June 03-04, 2019 at Berlin, Germany

**Michael J. Schwerer**

Air Force Centre of Aerospace Medicine, Germany



## Recent Developments in Forensic Pathology and Their Application in Aircraft Accident Investigation

Recent developments in molecular pathology widen the possibilities in the forensic medical investigation of the victims of aircraft accidents. Samples of organs and body fluids obtained during forensic autopsy will still be studied with the traditional histological and cytological techniques also today. However, newly developed immunohistochemical and in-situ-hybridization procedures now provide subtle insight into changes in tissue structure and regulatory dysfunction in cells resulting from either longstanding pre-existing disease or sudden impairment of a crewmember's fitness to fly. The analysis of changes in gene expression both on the transcriptional and the post-transcriptional level studying DNA methylation, messenger RNAs and microRNAs allows conclusions on a person's medical condition prior to an aircraft accident as well as on the injury pattern resulting from the impact. The molecular techniques can be informative even in samples from bodies with severe changes e.g. from fire or putrefaction. However, adaptive changes in a flyer's body resulting from specific environmental and physiological influences in flight such as repeated hypoxia or positive G-forces along with sharp curves, especially in military pilots, must be considered in the interpretation of the respective findings. Based on all of these findings, the forensic expert can comment on a possible medical cause of the accident. This also includes a critical evaluation of the work of the aeromedical examiner who issued the medical certificate of the pilot. Hence, aircraft accident investigation not only intends to omit mishaps in future, but is also part of prosecution both in criminal and civil law.

### Biography

Michael J. Schwerer graduated in medicine from the University of Ulm, Germany in 1997. He was board certified in anatomic pathology in 2006 and in forensic pathology in 2016. In January 2019 he was appointed Chief of Branch I 4 (Aircraft Accident Investigation) in the German Air Force Centre of Aerospace Medicine. He has published more than 20 papers on histopathology, molecular and forensic pathology.

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## Nadine Touzeau

Profiler, Net-profiler, Researcher in Behavior of Cybercriminals, France

### Net-Profiling: Understanding the Behavioural Differentiations Between the Real and the Virtual Space to Make Predictions in Cyber Defence

The human being behind every act, whether the universe is real or virtual, it is necessary to understand it in order to fight against all cybercrimes.

Cybercrime has been growing rapidly for years, organizing itself and cementing its transversal universe, leaving no country to protect itself against cyber attacks ranging from phishing to terrorism. Whereas investigations are practiced in the virtual with the same model as the real one by privileging the technical Forensic to the behavioral, these approaches make the game of the cybercriminals of which it is occulted that they are human !

Ingenuous human who feel more powerful behind the screen, have created a world with norms, languages, codes and laws specific to their virtual universe. Humans who have developed behavioural potentials according to their desire, character, state of mind, potential, expectation, etc. modifying their profile.

These humans change their behaviour which is sometimes reproduced, in whole or in part, in reality. This has significant implications for understanding cybercriminals in order to better comprehend them and predict their objectives, evaluate Modus Operandi and signatures, and detect differentiating behaviours to predict their future actions.

This conference will show you that net-profiling and my research about Behavioural Differentiation Between Real to Virtual Space must integrate cyber investigations.

#### Biography

Nadine Touzeau is profiler, net-profiler and researcher in behavior of cybercriminals. Two scientific books "Net-profiling" (2015 and 2018) has become a reference in several research and teaching laboratories in the world.

From November 2017 to today, she has published more than 10 scientific articles in American journals Behaviour Differentiations Between Real to Virtual Space and has revealed 4 theories.

She was a professor at Gendarmerie School at Madagascar and Criminology Institute in France.

Graduate Paul Ekman International (International Diploma at Legal value, Signs Detection, dispensed to the CIA, FBI, etc.)





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## Keynote Forum (Day 2)

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June 03-04, 2019 at Berlin, Germany



## Shah baz Pervez Chattha

Senior Security Consultant for Yanbu Smart City, The Kingdom of Saudi Arabia

### Smart Services vs Digitalization in Cyber Era Effects of Digitalization and Smart Services with Extensive Use Internet on Privacy of Common Person

In Recent era of digitalization, there is ubiquitous trend of smart cities which ultimately resulting in huge infrastructure deployment with intention to provide smart services for residents of smart cities. City governments of current era are under huge pressure to facilitate their residents by offering state of the art services fully equipped with technology gadgets, eventually they are collecting huge amount of data from users of these gadgets. These services are very exciting but on the other side they also pose a big threat to the security & privacy of individuals. There is a great need to address these issues and some preemptive measures should be taken by city governments. On the other hand there is a great need to spread awareness among social media and internet users to wisely use internet and social media. As social media and online storage have become an integral part of many people's lives. Files, photos, and videos are shared between friends and family. Online collaboration and meetings are conducted in the workplace with people who are many miles from each other. The storage of data is no longer limited to just the devices you access locally. The geographical location of storage devices is no longer a limiting factor for storing or backing up data at remote locations. With introduction of 6G in near future interoperability will be biggest area which need to be focused. In this speech I will be discussing the following.

In today's lecture we will learn.

1. Impact of Internet & Smart city services our life.
2. Secure use of smart city services.
3. Modern security threats and their solution
4. Audience will explore legal agreements required to use various online services.
5. Possible optimal ways we can use to protect your data
6. Activity by audience to check their Cyber Behavior.
7. What are Cyber Security trends and what are their impact on our personal life.
8. Preemptive measures to remain safe while using internet & social media
9. What are future trends for security and privacy?
10. Important online Cyber Security & Privacy tips.
11. 6G Networks and their services and need for new security architecture.

#### Biography

Dr. Shahbaz Pervez Chattha is enjoying a diverse kind of profile based on his technical expertise and diverse kind of experience. Currently he is working as senior faculty Member / Senior Security Consultant at Royal Commission for Jubail & Yanbu in The Kingdom of Saudi Arabia. He is involved in planning & design of Secure Smart City Infrastructure and Smart City Services for Yanbu Smart City project (Approx. 420 Sq. Km - first ever Smart City of The Kingdom of Saudi Arabia). He also working as Faculty member in the Department of Computer Science & Engineering where apart from teaching assignments he is also responsible for state of the art and industry focused curriculum development as per international standards and addressing industry needs. His Core area of expertise includes implementation of cutting-edge technologies with major focus on information, network and cyber Security. He possesses diverse experience ranging from extensive background in the field of planning, designing and deployment of cutting-edge technologies, professional training and research. Dr. Shahbaz have over 18 years of versatile experience ranging from technology implementation to teaching at international higher educational institutes complementing with international Certifications from industry leaders ( e.g. Cisco, Juniper, Sun Micro Systems, CompTIA, EXIN ). He also has been working with international organization as Inventor/consultant and successfully completed many international projects. He is winner for Many R&D Research grants in the field of information technology.



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## Scientific Sessions (Day 2)

**Chair**

**Michael J. Schwerer**, Air Force Centre of Aerospace Medicine, Germany

**Session Introduction**

**Title: An Auditory Analysis Protocol for Chinese Speakers In Forensic Speaker Comparison**

Kang Jintao, Institute of Forensic Science, Ministry of Public Security, China

**Title: Long-Term Stability in Acoustic Features of Standard Chinese Speakers and Its Application in Forensic Speaker Comparison**

Kang Jintao, Institute of Forensic Science, Ministry of Public Security, China

**Title: Design of a Novel Nitrogen Dioxide Method for Visualization of Latent Fingerprints on Thermal Paper**

Sasho Stojkovikj, Ss Cyril and Methodius University, Republic of Macedonia

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## An Auditory Analysis Protocol for Chinese Speakers In Forensic Speaker Comparison

**Kang Jintao**

Institute of Forensic Science, Ministry of Public Security, China

This study presents an auditory analysis protocol for the auditory-perceptual evaluation of Chinese speakers in forensic speaker comparison. The vocal profile analysis (VPA) protocol, on which this protocol is based, covers a wide range of settings with many scalar degrees, which is comprehensive and rigorous. We do agree that a more delicate framework will make the auditory analysis more reliable. However, VPA protocol's complexity and steep learning curve make it hard to put into use in practice. So our first modification is simplifying it to make it easier to access. The original settings are cut down from 36 to 22, where 16 settings are vocal tract features and 6 are phonation types, while keeping the structure of main types. The range of scalar degree is reduced from 6 to 2 and is re-organized for the balance of completeness and reliability.

Our second modification is adding some Chinese characteristics, like the description of the accuracy of tones, to the protocol, for tones play a far more important role in Chinese. Furthermore, rhoticity, which is mainly realized by retroflexion, varies from person to person in Chinese for different reasons, so the setting of "lingual tip" will bear more burdens in the modified protocol. Recordings of 50 speakers (40 males and 10 females) from real criminal cases were evaluated by 3 analysts independently. Consistency among the 3 evaluators were calculated by their percentage agreement and Euclidean distances were used to measure the similarity of different speaker pairs. Results showed that evaluators keep a high consistency (90.7% or above) and Euclidean distances have different distributions between the same and different speaker pairs when using this protocol.

### Biography

Kang Jintao is an associate professor in Institute of Forensic Science, Ministry of Public Security, PRC. He is also a PhD candidate in Institute of Linguistics, Chinese Academy of Social Sciences. Since 2011, He has examined audio recordings from over 200 criminal cases. His research interest is in forensic phonetics and speech prosody.

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## Long-Term Stability in Acoustic Features of Standard Chinese Speakers and Its Application in Forensic Speaker Comparison

**KANG Jintao**

Institute of Forensic Science, Ministry of Public Security, China

This study focused on long-term stability in acoustic features of Standard Chinese speakers, which is an important foundation of time robustness in Forensic Speaker Comparison and Automatic Speaker Recognition. Four Chinese newscasters had been selected and their recordings between 2005 and 2012 was picked out every two weeks as speech materials. Fundamental frequencies (F0) and the first three formants of [a], [ə], [i], [u], [y], [ɿ] were measured and calculated to get the variation trend of these acoustic features during those eight years. As for F0, results showed that the biggest rate of change for the four speakers is 6.69% while the smallest is 4.82% (Table 1). As for formants, F1, F2 and F3 all changed with time while the ranges of variation are very small. The biggest change, 11.78%, happened in the F1 of [i] of a male speaker while the smallest change in the F3 of [i] of another male speaker (Table 2). As for variation trends, values of F0, F1 and F3 had trended down to a tiny degree over the eight years while those of F2 were highly stable. Figure 1 showed the trend of first formants of [e] of a male speaker. This is the first research on acoustic features stability of Standard Chinese speakers in such a long term and the results prove that the current auditory-acoustic-phonetic method of forensic speaker comparison is reliable in a time gap of at least 8 years.

### Biography

Kang Jintao is an associate professor in Institute of Forensic Science, Ministry of Public Security, PRC. He is also a PhD candidate in Institute of Linguistics, Chinese Academy of Social Sciences. Since 2011, He has examined audio recordings from over 200 criminal cases. His research interest is in forensic phonetics and speech prosody.



## **Design of a Novel Nitrogen Dioxide Method for Visualization of Latent Fingerprints on Thermal Paper**

**Sasho Stojkovikj<sup>1</sup>, Slobodan Oklevski<sup>2</sup>, Om Prakash Jasuja<sup>3</sup> and Metodija Najdoski<sup>1</sup>**

<sup>1</sup>Ss Cyril and Methodius University, Republic of Macedonia

<sup>2</sup>Ministry of Interior - Skopje, Republic of Macedonia

<sup>3</sup>Sanskriti University, India

Thermal paper is widely used for printing bills, ATM slips, invoices, receipts, tickets and etc. Actually, this material presents a paper which is one-side coated with thin layer (i.e thermal layer) that contains leuco dyes, developers, and solvents with low melting point (45-65 °C). The printing process on this kind of paper is achieved by applying heat on its surface that leads to slight melting of the solid solvent which allows contact between the components from the thermal layer thus inducing color change.

A new chemical method for visualization of latent fingerprints on thermal paper based on treatment with nitrogen dioxide (NO<sub>2</sub>) gas is presented in this work. The gas is generated by reaction between zinc and diluted nitric acid in a simple chamber. The proposed method does not require fingerprint's fixation reagent (post-treatment) i.e. the fingerprint remain permanent for more than one week, without any changes in its quality. The general visualization mechanism is based on providing acidic conditions in order to induce tautomeric transformation of the leuco dye's molecules in the thermal layer, accompanied with color change of the papillary lines through the completely impressed fingerprint. This method provides more than satisfactory contrast between the visualized fingerprints and the background surface. The visualized fingerprints are qualified with high clarity and continuity of the friction ridges, and also clarity of the second level characteristics and third level features. The method was evaluated by dactyloscopic analysis and according to the results, it can be exemplified with high identification capacity.

### **Biography**

Sasho Stojkovikj has completed his BSc and MSc degrees from the Institute of Chemistry, Faculty of Natural Sciences and Mathematics, Ss Cyril and Methodius University in Skopje, Republic of Macedonia. He is a PhD student at the Freie Universität in Berlin, Germany and Scientific Associate in Helmholtz Zentrum Berlin für Materialien und Energie, working on Electrochemical conversion of carbon dioxide. He has published 4 papers in the field of material science, 2 papers in educational chemistry and one paper in the field of forensic sciences (design of chemical methods for visualization of latent fingerprints on cartiridge cases).



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## Video Presentation

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June 03-04, 2019 at Berlin, Germany

## **The Art of Managing Forensic Laboratories: The Scientist's Guide to Becoming an Effective Manager**

**Mahmoud Abed**

CEO Vorto Vision Consulting, Canada

The management of modern forensic laboratories extends beyond monitoring casework and addressing human resource issues. Managers must employ innovative business intelligence tools and implement key performance indicators to effectively manage their laboratory.

Moreover, forensic laboratory managers are required to remain technically proficient since they act as subject matter experts. Thus, having technical as well as business tools at their disposal will allow them to excel in the management of their laboratories.

### **Learning Objectives:**

The overall objective is to highlight fundamental management practices and educate practitioners on their implementation. The presentation will focus on three topics:

- 1) Managing client needs and expectations,
- 2) Active case management, and
- 3) Employee engagement.

### **Methods:**

- 1) Managing client needs and expectations:

Forensic science is rapidly gaining momentum due to its ability to generate critical investigative leads. Accordingly, forensic laboratories need to expand their services to meet their clients' growing demands.

The presentation will cover the following topics:

- a) Quality of service questionnaires.
  - b) Client training (moving the forensic laboratory to the site).
  - c) Achieving and maintaining accreditation.
- 2) Active case management:

With the growing demand to analyze more exhibits, forensic laboratories must optimize the management of their resources to gain efficiency. The presentation will cover the following topics:

- a) Forecasting models to predict incoming caseload (identify data trends and establish a relevant forecasting model).
  - b) Performance metrics.
  - c) Efficient reporting.
- 3) Employee engagement:

Employee engagement is the cornerstone of the continued success of any forensic laboratory. Given the unique skill set of forensic employees, engaging them in the continued improvement of the laboratory is essential.

The presentation will cover the following topics:

- a) Team structure.
- b) Communication.
- c) Professional development.

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**Outcome:** The expected outcome is to empower forensic laboratory managers, to learn simple yet valuable tools to manage their laboratory more effectively.

## Biography

Mahmoud Abed, a Canadian Forensic Scientist with the Royal Canadian Mounted Police. Academically, I hold a Master's degree in Management Sciences from the University of Waterloo (Canada), with a specialization in project management. I also hold a Bachelor's of Science degree from the University of Ottawa (Canada), with a specialization in Biotechnology. Professionally, I am working at the Royal Canadian Mounted Police (RCMP) as a Forensic Specialist. Over the past ten years within the forensic laboratory, I held key management positions such as a Biology Team Leader and Biology Program Support Manager. I worked directly with senior management to review the forensic laboratory's policy platform to identify gaps, highlight priorities, develop corrective actions, and establish implementation strategies. I also worked with the United Nations as an international consultant to design and deliver a complete basic forensic science training program for the Palestinian forensic laboratory. Furthermore, I founded Vorto Vision, a management consulting agency delivering services worldwide to forensic laboratories and medical firms.



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## Poster Presentation

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June 03-04, 2019 at Berlin, Germany

## **Comparisons of Fingerprints Development Using Fire Extinguisher Dry Powder and Traditional Powders (Aluminium Powder and Magnetic Powder)**

**Deejay Suen Yui Mak**  
Tung Wah College, Hong Kong

Fingerprints are one of the most frequently encountered types of evidence at the crime scene. The powder technique for detecting latent fingerprints has been universally used on non-porous surfaces since methods of fingerprinting began. By using a powder of a contrasting colour to the surface upon which the print is found, the ridge pattern of the print is visible and can be photographed. The most common two traditional powders are aluminium powder and magnetic powder. They are the oldest and the most readily available methods for the development of latent fingerprints on non-porous surfaces. The application of both powders is simple and inexpensive, while little experience is necessary to obtain satisfactory results. However, for evidence with large surface areas such as mirrors and glasses, applying aluminium powder and magnetic powder can be very time-consuming. In this research, the potential of fire extinguisher dry powder as a method to develop latent fingerprints is being investigated. A direct spraying of the interior of the scenes with fire extinguisher dry powder can be carried out in a few seconds and any marks developed can be immediately, directly photographed. However, the quality of fingerprints developed by fire extinguisher dry powder has not been compared to the traditional powders in any studies. The purpose of this research is to compare the quality of fingerprints developed by the fire extinguisher dry powder to the traditional powders (aluminium powder and black magnetic powder) on different evidence items.

### **Biography**

Deejay Suen Yui Mak has completed her Master of Science in the field of Food Safety and Toxicology from The University of Hong Kong and Honours Bachelor of Science (Chemistry Specialist in Forensic Science) from University of Toronto, Canada. She is currently a lecturer of Tung Wah College, a self-financing degree-granting tertiary institution, teaching chemistry and forensic science. In parallel to forensic science research, she also works on urological oncology (bladder cancer and immunotherapies) and carry out animal laboratory experiments.



## **Research on the Application of Person Re-Identification Technology in Video Detection**

**Wei Chen**

Shanghai Public Security Bureau, China

In recent years, with the large-scale construction of video surveillance system, video detection technology is playing an increasingly significant role in combating crime, and has become an important means for public security organs to investigate and solve cases. However, in the face of massive video surveillance data, relying on manual review after the criminal case is time-consuming and labor-intensive, affecting the efficiency of solving cases. As a new technology in the field of intelligent video surveillance, person re-identification is becoming a hotspot of research and application. Person re-identification is to identify the same target person in an image database coming from non-overlapping camera views. The database images usually come from different cameras, so they face challenges brought by changes in perspective, pose, scale and illumination. With the maturity of deep learning technology, the robustness and accuracy of person re-identification can be improved by fusing pedestrian features and pedestrian attributes through convolution neural network, and further promote the in-depth application in video detection.

In the poster we will show:

1. The basic principles of person re-identification
2. The application scenario of person re-identification
3. Case sharing

### **Biography**

Wei Chen graduated from University of Technology Sydney in Australia with a master's degree in 2009. Since September 2009, he has participated in the Key Projects in the National Science & Technology Pillar Program "Research on Key Technologies of scene investigation and latent trace evidence extraction", he has been responsible for the design and development of "Software Application Platform for on-site and Material Evidence Image Analysis and Processing". Since 2013, he has been participating in the research of "Intelligent Video Retrieval Technology", and made a thorough research on the application of pattern recognition technology in forensic science video investigation.

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## ATF3 mRNA, but not BTG2, as a Possible Marker for Vital Reaction of Skin Contusion

**Dong Qu**

Southern Medical University, China

The detection of vitality of wounds, especially when the wounds are inflicted very close to the time of death, is one of the most challenging issues in forensic pathology. This study investigated expression levels of ATF3 and BTG2 in mouse and human skin wounds. Protein levels examined by western blot showed that there was no significant change in ATF3 and BTG2 between wounded and intact skins. However, mRNA levels demonstrated higher expression of ATF3 and BTG2 in ante-mortem contused mouse skins, compared with the intact and postmortem contused skins. Increased ATF3 and BTG2 in the level of mRNA could also be detected until 96 hours and 48 hours after death, respectively. Human wounded skin samples from forensic autopsy cases were also examined. Increased ATF3 mRNA levels were detected until 48 hours after autopsy in 5 of 6 cases. However, no differences were observed between wounded and intact skins for BTG2. These findings suggest that the detection of mRNA levels of ATF3, but not BTG2, can be considered as a potential marker for vital reaction of skin contusion. Postmortem human samples should be used in order to validate the availability of markers screened by animal experiment.

### Biography

Qi Wang has completed his PhD from Osaka City University, Japan. He has published more than 30 papers in reputed journals and has been serving as an editorial board member of repute.

## **Alcohol-Related Sexual Assault Cases: Detection Time of Ethyl Alcohol, Ethyl Glucuronide and Ethyl Sulfate as Markers of Alcohol Consumption in Whole Blood**

**Young-Hoon Jo**

National Forensic Service (NFS), Republic of Korea

Alcohol-related sexual assaults have been occurring in an irresistible state (i.e., inability to react psychologically and physically) of victims due to the blackouts and inebriation. Therefore, it is important to determine whether a sexual assault is drinking or not. The ethyl alcohol (EtOH) is determined as a direct indicator of alcohol consumption. Other direct alcohol markers rely on alternative pathways of alcohol metabolism and include ethyl glucuronide (EtG) and ethyl sulfate (EtS). In addition, the EtG and EtS have been carried out in a variety of forensic and clinical settings. In the sexual assault cases from Republic of Korea, EtOH positive could not be almost detected from the victims, since it takes a long time to receive and collect the blood as a evidence, even after the ingested EtOH itself has been eliminated from the body. Therefore, it is necessary to analyze ethanol metabolites EtG and EtS, which are relatively longer than EtOH in human body. In this study, EtOH, EtG and EtS were analyzed in blood, and investigated detection time in the sexual assault cases. Cut-off values of EtOH, EtG and EtS were used to determine alcohol consumption as 0.010% (w/v), 0.09 mg/L and 0.03 mg/L, respectively. As a result, the detection time of EtOH positive was 5.6 h ( $\pm 2.3$ ,  $n=17$ ), EtG and EtS positive were 13 h ( $\pm 2.5$ ,  $n=5$ ). The concentration of the EtOH, EtG and EtS was about 0.124% ( $\pm 0.062$ ), 0.193 mg/L ( $\pm 0.046$ ) and 0.137 mg/L ( $\pm 0.065$ ), respectively. Consequently, it is possible to solve the problem from the delay time in alcohol-related sexual assault and the determination of EtG and EtS could be used as a scientific index.

### **Biography**

Y.H. Jo received a Ph. D. at Hanyang University in Republic of Korea. He is forensic chemistry resercher of NFS organization and has been working for 5 years. He has published more than 15 papers in domestic and foreign journals and has been serving as analysis of alcohols in a criminal investigation.

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## Laparoscopic Entry-Related Complications: Medico-Legal Aspects

**Leonardo Ciccone**

University of Udine-Trieste, Italy

General, Urological and Gynecological surgery is supported by laparoscopic technique, a minimal invasive approach to abdomen and pelvis with benefits on outcomes of the patients: lower morbidity, less pain, faster recovery, and a shorter hospital stay than open surgery. Intraoperative complications, such as injury to major retroperitoneal vessels and viscera, are rare and mainly occur at the time of laparoscopic abdominal wall entry.

The choice of the site for instruments entry depends on the history (suspected adhesions, previous laparotomies) and the habitus of the patient (obese or thin) to obtain safe access to the peritoneal cavity. The entry may be performed in various ways, and there is still not one unique and safe method of introduction of the central trocar.

To minimize complications, several techniques and technologies have been introduced during the last 50 years; now four techniques are frequently performed with different types of instruments (optical/ non-optical trocar, with/without Veress needle): closed or open technique, direct access and optical trocar insertion.

From a fatal case concerning a trocar perforation of aorta, we have revised literature and important weaknesses have been identified: excessive penetration force; angle of penetration, type of trocars; nonvisualization of the operative field (blind trocar insertion); sudden loss of trocar control and trocar overshoot.

Considerable heterogeneity in laparoscopic entry practice led to create guidelines for a safe approach and to avoid medico-legal complications.

### Biography

Leonardo Ciccone is a MD attending the post-graduation School in Forensic and Legal Medicine at the University of Udine-Trieste, Italy.



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3<sup>rd</sup> World Conference and Exhibition on

# Forensic Science

June 03-04, 2019 at Berlin, Germany

## Accepted Abstracts

# 3<sup>rd</sup> World Conference and Exhibition on Forensic Science



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## The Enhancement of Human Scent Profiles as Forensic Evidence

Alice B. Boone

Florida International University, USA

Upon completion of this presentation, attendees will understand how human odor profiles can be collected and evaluated, why human scent can be utilized as an individual or class characteristic, and why there is a need for profile enhancement of odor profiles for all ethnicities. This presentation will impact the scientific community by portraying the reproducibility of findings in previous Caucasian and Hispanic human scent analyses as well as the novel incorporation of African American odor profiles.

Human scent has been previously defined as a complex mixture of volatile organic compounds (VOC's) detected in the headspace above a scent sample (Curran et al, 2005). Humans generate odor from several areas of the body including scalp, hair, mouth, hand, axillae, and foot. The analysis of the chemical composition of human scent has enabled scientists to portray variations within these factors (age, gender, and ethnicity) to distinguish between individuals. Due to the novelty of human scent research, human scent evidence has been undervalued in the court of law. However, this type of evidence has significant value when physical evidence is not available at crime scenes. In order to increase the individualization and differentiation power of human scent evidence, this study aims to further investigate the identification of chemical signatures within the hands and axilla of specific ethnicities and genders.

Upon collection, samples are extracted using Headspace Solid Phase Micro extraction (HS-SPME) and Liquid-Liquid Extraction (LLE) and analyzed using Gas Chromatography-Mass Spectrometry (GC-MS). The utilization of SPME immediately followed by LLE complements the extraction of semi-volatile and non-volatile compounds. Hence, filling in the gaps of the compounds that could not be recovered using HS-SPME alone. This ensured that a full VOC profile is obtained, allowing for improved statistical analysis without requiring any additional sample collection. The samples were evaluated statistically to extrapolate data unique to specific individuals and groups.

Scientific advances have enabled the forensic science community to use scent as a feature for individual or class characteristic determination. The several analyses of body odors using the VOCs emitted have proven that if enhanced, human scent can be just as useful as fingerprints and DNA in the attempt to identify individuals. In future work, the VOCs emitted from the underarm of human subjects can potentially correlate to specific Human Leukocyte Antigen (HLA) alleles. Additionally, once the unique odor profiles of each ethnicity can be identified and reproduced efficiently, the development of live human scent training aids for canines can commence.

**Keywords:** Human scent; Volatile organic compounds (VOCs); Headspace solid phase micro extraction (HS-SPME); Liquid liquid extraction (LLE)

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## **The Utilization of Technology in Clinical Psychological Treatment and Training**

**Brittney Montgomery**

The Chicago School of Professional Psychology, USA

**R**esearch provides empirical evidence that the utilization of technology within the field of clinical psychology has added a much need improvement to the effectiveness of treatment and training. Advancements in modern forensic science has brought about tools incorporating augmented reality and biotechnology that has allowed for a new therapeutic environment to be utilized by clinicians. Such changes in technology has opened new avenues related to the psychological approach to treatment and effectiveness that is now accessible and applicable to several areas of clinical psychology.

### **Biography**

Brittney Montgomery is going into her second year of the Clinical Forensic Psychology Doctoral Program at The Chicago School of Professional Psychology – Los Angeles. Brittney holds a Bachelor of Arts degree in Psychology from California State University, Northridge. Brittney is a member of the Psi Chi Honor Society and a member of the Chicago School Student Association. She currently is focusing on her education and will be working at the Lost Angeles Mission this fall. Ms. Montgomery hopes to work for the court system, correctional system, and/or law enforcement in the roles of assessment and recidivisms reduction.



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## **The Utilization of Technology in Clinical Psychological Treatment and Training**

**Breanna Lynn**

The Chicago School of Professional Psychology, USA

**R**esearch provides empirical evidence that the utilization of technology within the field of clinical psychology has added a much need improvement to the effectiveness of treatment and training. Advancements in modern forensic science has brought about tools incorporating augmented reality and biotechnology that has allowed for a new therapeutic environment to be utilized by clinicians. Such changes in technology has opened new avenues related to the psychological approach to treatment and effectiveness that is now accessible and applicable to several areas of clinical psychology.

### **Biography**

Breanna Lynn is completing her doctorate in Clinical Forensic Psychology at The Chicago School of Professional Psychology. She currently holds a M. A. in Forensic Psychology from The Chicago School of Professional Psychology, and a B.A. in Psychology with a minor in Family Studies from the University of Nevada, Las Vegas. Ms. Lynn began her career working at the state psychiatric hospital in Nevada. Her time in Nevada was also spent doing program development for Nevada Senior Center; a non-profit organization specializing in geriatric care. Currently she is certified by the California Sex Offender Management Board as an Apprentice Treatment Provider. Ms. Lynn also works as a forensic report writer, completing reports in both the civil and criminal field of forensic psychology. Ms. Lynn hopes to continue her work in treatment of the sex offender population.

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## Inter Subjectivity of Forensic Sciences Methods

**Marta Nawrocka**

Adam Mickiewicz University, Poland

In each of the legal proceedings, in which expert evidence is carried out, a major concern is the assessment of the evidential value of expertise. Judicial institutions, while making decisions, rely heavily on the expertises, because they usually do not possess 'special knowledge' from a certain fields of science. Expert's opinion is therefore an important evidence in the case, i.a. on this basis, judicial institutions make their decisions. This can have farreaching consequences for the parties of the trial. Within each expert report, expert applies a chosen method, which enables the answer to the questions raised by the judicial institution. However, methods used within various forensic sciences are characterized by a varying degree of intersubjectivity. Experts dispose relatively great freedom during the process of trace analysis, which often results in differences in the shaping of the conclusion. Recent studies indicate a number of factors that are responsible for this undesirable situation. One of them may be too low rank of law regulations, harmonizing the methods used by forensic experts in various fields. In many branches of forensic sciences, specific methods or standards of working there are still not developed and there is lack of legal regulations relating to this matter. From the point of view of legal authorities, whose task is to assess the probative value of the expertise, it is an important practical problem. These authorities are not able to check or trace the way of the expert's proceedings.

### Biography

Marta Nawrocka is PhD student of Laboratory of Criminalistics of University of Poznań (Poland) and has completed Faculty of Biology of University of Poznań. She also is a lawyer in private law company in Poznań. She has published 10 papers from the scope of forensic sciences. She is interested in inter subjectivity of forensic sciences methods and evaluation of legal evidences in trial.

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## The Forensic Challenges and Opportunities of Mass Disasters in Egypt

**Sherien S. Ghaleb**

Benisueif University, Egypt

Disaster management has been the hot topic in recent times; A disaster can be defined as any tragic event with great loss stemming from events such as earthquakes, floods, catastrophic accidents, fires, or explosions. It is a phenomenon that causes huge damage to life, property and destroys the economic, social and cultural life of people. The principal challenges that faces the forensic experts are: large numbers of humans fragmented, co-mingled, and burned remains; difficulty in determining who was involved in the disaster; acquisition of useful medical ,dental records and radiographs; legal, jurisdictional, organizational, and political issues; internal and external documentation and communication problems; application of universal human forensic identification codes. The documentation of scattered remains can often lead to inaccuracies due to the scale and complexity of a scene, often aggravated by the pressures of identifying victims as quickly as possible, determining the cause of the crash and clearing up the scene in order to minimize media intrusion. International assistance is often necessary when mass disasters occur in poorer countries. There is a number of supporting agencies that can assist in dealing with an incident and include nonprofit organizations such as the Red Cross.

This article will cover mass disasters of all types, including acts of terrorism and natural disaster especially what happened in Egypt. It will cover diverse topics from forensic investigation into the cause of the disaster, to identifying and handling the deceased, to legal considerations. It will focus on the role of law enforcement in disaster investigation; ways of identifying victims, including DNA analysis and forensic dentistry; the roles of forensic engineers, toxicologists and anthropologists .It will discuss the psychopathic behavior and the media in terrorist acts and the psychology at work in terrorist activity, giving examples of mass disaster management plans including the National Association of Medical Examiners Mass Fatality Plan.

**Keywords:** Disasters-Difficulties-Management

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## The Flammability of Textiles when Contaminated with Skin Care Products

Sarah Hall and Joanne Morrissey  
Anglia Ruskin University, UK

Since 2010 at least 37 people have died and numerous others have suffered agonising injuries as a result of fires attributed to the use of skin creams. These products are applied quite liberally and subsequently soak into clothing and bedding. If these items are not changed or are re-worn without washing, the amount of the product (which generally are paraffin based) builds up and can act as a fuel source for incidental fires. We have conducted test burns based on a standard method for testing the flammability of textiles, and have measured the time to ignition, the flame time, vertical flame spread (using video footage software) and once self-extinguished, the glowing combustion using a non-direct contact ignition source. e.g. 100% cotton sheeting ignition time =  $68.0 \pm 29.6s$  and when contaminated for 24hrs with 27.1% paraffin based cream =  $6.0 \pm 0.7s$  ( $p = 0.001$ ). Our results suggest that the textiles are behaving as a wick to increase volatility for quicker ignition. This has an impact on the time that someone is able to react when they accidentally expose contaminated clothing to an ignition source. We also found that contaminated clothing underwent longer glowing combustion times and therefore could cause severe skin burns. This risk concerns users of prescribed or 'off the shelf' skin creams and other paraffin based products, which is a significant proportion of the population. The research we present is in partnership with the National Fire Chiefs council, West Yorks and Essex Fire and Rescue Services, the London Fire Brigade.

### Biography

Dr. Hall is a full time Senior Lecturer currently researching the analysis of fire debris and recovery of ignitable liquid residues from fire scenes and other areas of Fire Investigation. She has published in international journals relating to research in Environmental Forensics, Drug and Pharmaceutical Analysis, Wildlife Forensics and Fire Investigation and supervised PhD research in these areas. Before joining academia she has been a Laboratory Manager and Chemist in accredited analytical laboratories and has a PhD in Chemistry and a BSc (hons) in Chemistry and Environmental Science.

Joanne Morrissey is a full time Senior Lecturer with a specialism in Crime Scene Investigation, Fire Investigation and fingerprint comparison. She has more than 22 years of experience as a Forensic Practitioner, having worked for the police in the UK and USA. She has an MSc in Fire Investigation.

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## Innovation of Integrated Physical Security Features Against Currencies Counterfeiting

**Mohamed Awadalla**

Forensic medicine authority, Egypt

**Introduction:** In Egypt (2016& 2017s), oversize number of counterfeited banknotes (200 Egyptianpounds (2013 issue), 100 USA dollars (series 2006, 2006A) and 50 euro (the second issue 2003;Jean-Claude) were accepted by public and some commercial cash in stores and banks.

**Objectives:** In the present time; using conventional security elements wasn't effective to protect banknotes. Forgers now can counterfeit these elements easily due to the availability of high resolution computer printers, graphic programs on CDs and internet and the ease of getting commercial UV ink from stores and internet.

So non-conventional security elements must be studied and added to modern banknote to protect public and commercial cash in stores and banks against counterfeiting.

**Materials and methods:** Criminal cases that contain counterfeited banknote sent from courts to forgery detection system for examining and preparing a report with the net result so 200 Egyptian pounds, 100 USA dollar and 50 euro in this research were collected from actual criminal cases.

Forgery detection dept. has an archive that recorded and categorizes different local and international currencies, prevalence rate inside Egypt and the tools used in counterfeiting.

The tools that were used to counterfeit this special 200 Egyptian pound (2013 issue), 100 USA dollar (series 2006, 2006A) and 50 euro (2003 issue) were determined by licaM420 macrozome stereo microscope (lica Swiss co) and VSC 6000 workstation instrument (foster + freeman UK co).

Many workshops were done (2016 and 2017s) on the Egyptian banknote house by the international banknote security companies and modern security element were discussed.

**Results and Conclusion:** The banknote security elements are important for the public and commercial cash in stores and banks to be able to distinguish between genuine and fake notes.

Actually, modern integrated physical security elements must be added to banknote to act as an enforced safeguard to minimize the risk of counterfeiting. For example paper materials, enhanced and pixel watermarks, special deign spark inks, well-chosen motion, rapid and picture threads and multicolor UV security fibers.

### Biography

Dr. Mohamed Awadalla has completed his PhD from Alazhar University, Egypt, He is a general manager of fraud detection dept; forensic medicine authority; ministry of justice; Egypt. Consultant in the field of currencies & documents securing, signatures comparison and fraud detection since 2015 (Egyptian Syndicate of scientific professions).Published 10 papers in reputed journals.

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## Application of Forensic Entomology in Estimating Post-Mortem Interval (PMI) in Mammalian Models In Bangladesh

**Golam Mostafa**

Jahangirnagar University, Bangladesh

Forensic entomology is used as an important tool to estimate the postmortem interval (PMI) or time since death, which is crucial for linking a victim with a suspect in suspicious death case investigations. This research work included two case studies, in which estimates of the PMIs were performed using accumulated degree-hours (ADH) method. In both case studies, the PMI estimations were based on the biology of sheep blow fly, *Lucilia sericata* (Meigen) in two mammalian models- mongoose and mouse in Jahangirnagar University campus, Savar, Dhaka, Bangladesh. In the first case study, the calculation revealed that the death of the mongoose occurred at around 15.49-16.49hrs on 19th February, 2018 and the calculated PMI based on the appearance of 3rd instar larvae was 3.6 days. The skeletal observations revealed that some of the bones particularly in the vertebral column of the cervical area were found broken and disjointed giving the proof of the death of the animal by traffic accident because the location of the death spot was a busy road of the university. In the second case study with a mouse corpse, the estimation demonstrated that the death of the mouse occurred at 13.48-14.48 hours on 2nd August and the calculated PMI based on the 3rd instar larvae was 2.1 days. Both case studies, which are first in Bangladesh, offer potentials and necessary tools in estimating PMI in case of the death for any kind of animals and particularly in the medico-legal investigations of homicide cases or any unauthorized killing of wild lives or domestic animals in Bangladesh.

### Biography

Prof. Dr. Md. Golam Mostafa has completed his PhD from Kumamoto University, Japan and postdoctoral studies from Pierre and Marie Curie University (UPMC), France. He is the director of Chairman of the Department of Zoology, Jahangirnagar University, Savar, Dhaka, Bangladesh. He has published more than 20 papers in peer-reviewed accredited journals at home and abroad and has been serving as an Associate Editor of Jahangirnagar University Journal of Biological Sciences, Bangladesh.

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## Evaluation of Violence Against Healthcare Professionals

**Nurcan. Hamzaoglu**  
Yeni Yüzyıl University, Turkey

The purpose of this study is to describe the physical and verbal violence frequency that is experienced by health professionals from patients and visitors, and how they react when they face violence. The percentage of the participants working in the emergency room and ambulance was 56.3% (80) and the percentage of the participants working in intensive care and operating rooms was 43.7% (62). The percentage of the participants who stated that they had been subjected to physical violence at least once throughout their working life by the patients or their relatives is 44% (63) and the ones who had been exposed to verbal abuse was 85.2% (121) of the participants. While 31.7% (45) of the participants in emergency and ambulances stated that they were exposed to physical violence, this rate was 12.7%(18) in the nursing and operating room workers ( $P < 0.001$ ). While 55.6% (79) of the participants in emergency and ambulances stated that they were exposed to verbal abuse, this rate was 29.6% (42) in the nursing and operating room workers ( $P < 0.001$ ). While 74.6% (106) of the participants stated that the reporting of the violence to the official authorities was supported by the managers, 23.6% (34) stated that the reporting was not supported by the administrators; two individuals did not answer the question. In order to prevent violence in health sector; in addition to ensuring the security, the adequacy of personnel, improvements in physical facilities and equipment, communication, and education, legal regulations against acts of violence should be implemented.

### Biography

Nurcan Hamzaoglu has completed her PhD from Istanbul University Institute of Forensic Medicine, Turkey. She is working as an assistant professor at Yeni Yüzyıl University, Turkey. She has published several papers in different academic journals.

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## **Genetics to Resolve Hypothesis in Social Organization of the Muisca Prehispanic Population in Colombia**

**Wilmer Y. Gutiérrez**

University of Los Andes, Colombia

In this research, genetic tools are used to answer questions about the social organization of the late Muisca population, prior to the Spanish conquest period. The study demonstrates the value of genetic analysis to controvert advanced ideas from archeology and the study of chronicles of the Colonial Period. The information of this investigation comes from the Tibanica archaeological site located in the south of the Sabana de Bogotá, more exactly in the municipality of Soacha. The work, carried out jointly by the Department of Anthropology and the Human Genetics Laboratory, allowed the development of one of the most ambitious projects in pre-hispanic genetics, given the number of individuals scientifically excavated. This project helping to answer questions made by archaeologists, has involved a stage of standardization of methodologies and adaptation of spaces that has led to the development of protocols suitable for the generation of results from authentic ancient DNA. It also contributes with information that will be important for the reconstruction of the indigenous settlement of the North of South America. Specifically, it managed to typify genetic information from the hypervariable regions I and II of the mtDNA of individuals buried with rich trousseaus, in order to determine if access to this kind of trousseaus was restricted to members of a few maternal lineages, as they have proposed some archaeologists. Furthermore this work could evaluate housing organization reported in Colombian and Spanish chronicles, finding indications of how these ancient populations lived in the center of Colombia before the Spanish colonization.

### **Biography**

Wilmer Y. Gutiérrez is a Biologist and master student at the University of Los Andes in Bogotá Colombia, now he works in the Human Genetics Laboratory with ancient DNA from prehispanic communities to resolve organization hypothesis to contribute in anthropological and archaeological research.



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