

Duties and responsibilities of a Forensic Scientist

- Forensic science reassures effectiveness in police and correctional services by ensuring that the truth of their actions will be known while at the same time discouraging frivolous litigations
- There is extensive variability across forensic science disciplines with regard to techniques, procedures, dependability, types and numbers of probable errors, research, general acceptability, and published material.
- Some of the forensic science disciplines are laboratory based others are based on expert interpretation of observed patterns
- There are very significant dissimilarities, however, between forensic laboratory work and crime scene investigations.

- Forensic scientists have to objectively and skeptically employ the scientific method
- The **scientific method** is a way to investigate how or why something works, or how something happened, through the development of hypotheses and subsequent attempts at falsification through testing and other accepted means
- It is a structured process designed to build scientific knowledge by way of answering specific questions about observations through careful analysis and critical thinking
- Observations are used to form testable
- hypotheses, and with sufficient testing, hypotheses can become scientific theories.
- Eventually, over much time, with precise testing marked by a failure to falsify, scientific theories can become scientific principles
- Basic research scientists use scientific method to generate new knowledge.
- Applied scientists typically study the knowledge that the scientific method has managed to accumulate

- Forensic Scientist must encourage the adoption of a scientific culture
- The scientific culture encourages cautious, precise statements and discourages statements that go beyond established facts.
- It is acceptable for colleagues to challenge one another, even if the challenger is more junior.
- The forensic science disciplines will profit enormously by full adoption of this scientific culture.
- Forensic scientists should be impartial voices in the arbitration of facts.
- They should strive to be devoid of emotion during their examinations and immune to pressures when rendering conclusions.
- Forensic scientists, after all, are not interested in the outcome of a case as they are not advocates for either side

- Forensic scientists are advocates for the evidence they examine. They are advocates for objective examination and good scientific practice.
- Subsequently, they are also advocates for their findings once they have been rendered
- Forensic scientists have a great duty to make sure that the result of their analysis not only comports to the evidence, but that the results of their analysis are ethical and pledge to ethical standards
- There is often great pressure placed on forensic scientists to provide results one way or the other, for whatever side may employ them.
- It is their sole responsibility to ensure that they remain impartial, regardless of the pressure, and to provide an analysis that benefits nothing but the facts of the case and the decider of those facts, be they judge, jury, or panel.

- As an expert witness the forensic scientist should provide independent assistance to the court by way of objective unbiased opinion in relation to matters within his expertise.
- An expert witness should state the facts or assumptions upon which his opinion is based.
- He should not omit to consider material facts which could lessen his concluded opinion.
- An expert witness should make it clear when a particular question or issue falls outside his expertise.
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- He should not omit to consider material facts which could detract from his concluded opinion.
- An expert witness should make it clear when a particular question or issue falls outside his expertise.

- If an expert's opinion is not properly researched because he considers that insufficient data is available, then this must be stated with an indication that the opinion is no more than a provisional one.
- If, after exchange of reports, an expert witness changes his view on a material matter having read the other side's expert's report or for any other reason, such change of view should be communicated through legal representatives to the other side without delay and when appropriate to the court.
- Where expert evidence refers to photographs, plans, calculations, analyses, measurements, survey reports or other similar documents, these must be provided to the opposite party at the same time as the exchange of reports.

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Report Writing

- An expert's report is issued on a standard pattern. It must include the following details:
- The laboratory case and the report numbers
- The case references (the FIR No, and the Letter no. with date
- The date and mode of receipt
- The description of the packages (with their content): their number, identification marks, seals and the signatures and whether the seals were intact or not
- The description of the exhibits, identification marks, signatures or the initials, etc.
- The questionnaire
- The dates on which the examination is commenced and completed
- The number and nature of the test exhibits prepared
- The experiments carried out, the observations made and the conclusions drawn
- The mode of dispatch of the report and the exhibits

Features of the report

- Information given in the report has to be concise but sufficient to be intelligible and to prove the conclusions arrived at convincingly
- The wording of the inference should be standardized
- Reports should be illustrated with the experimental data, photographs, illustrations and with the sketches whenever possible and necessary
- The conclusions form the most important part of the reports. They can be:
 - Definite conclusions
 - Indefinite conclusions
 - No conclusions
- A definite report should be given only when sufficient evidence is discovered
- The reports should be sent as soon as possible

Code of conduct of Forensic Scientist

- Forensic scientist should be independent, impartial, and objective, approaching all examinations with due diligence and an open mind.
- should conduct complete and unbiased examinations. Conclusions are based on the evidence and reference material relevant to the evidence, not extraneous information, political pressure, or other outside influences.
- should render conclusions only within their area of expertise, and about matters which they have given formal consideration.
- should honestly communicate with all parties (the investigator, prosecutor, defense, and other expert witnesses) about all information relating to their analysis, when communications are permitted by law and agency practice.
- should report to the appropriate legal or administrative authorities any unethical, illegal, or scientifically questionable conduct of other forensic scientists or laboratory employees.

- should not accept or participate in any case on a contingency fee basis or in which they have any other personal or financial conflict of interest or an appearance of such a conflict
- Should Base their opinions and conclusions on scientifically validated and generally accepted methods and tests.
- Should be committed to career-long learning in their forensic disciplines and stay abreast of new equipment and techniques while guarding against the misuse of methods that have not been validated.
- Should be properly trained and competent prior to undertaking the examination of evidence.
- Should give utmost care to the treatment of all samples or items of potential evidentiary value to avoid tampering, adulteration, loss or unnecessary consumption.

- Should use appropriate controls and standards when conducting examinations and analyses
- Present accurate data in reports, testimony, publications and oral presentations
- Do not alter reports or other records, or withhold information from a report for strategic or tactical litigation advantage.
- Support sound scientific techniques and practices, and never pressure another examiner or technician to arrive at conclusions or results that are not supported by data.
- Accept their moral obligation to assure that the court understands the evidence as it exists, and to present that evidence in an impartial manner.

INTERPOL



- International Criminal Police Organization and we are an inter-governmental organization.
- It has 195 member countries.
- The main purpose of its establishment is to enable the world police to ensure the safety of the human beings all over the world.
- To do this, it enables police of member countries to share and access data on crimes and criminals, and also offer a range of technical and operational support
- The first idea of establishing Interpol was hit in 1914 in the first International Criminal Police Congress held in Monaco.
- It was officially established in 1923 as 'International Criminal Police Commission'. This organization began to be known as "INTERPOL" in 1956.
- INTERPOL's headquarter is located in Lyon (France).Its current chairman is "Meng Hongwei".
- INTERPOL's General Assembly is its Governing body.

Some of the member countries of INTERPOL

Africa

	ALGERIA
	ANGOLA
	BENIN
	BOTSWANA
	BURKINA FASO
	BURUNDI
	CABO VERDE
	CAMEROON
	CENTRAL AFRICAN REPUBLIC
	CHAD
	COMOROS
	CONGO
	CONGO (Democratic Rep.)

Americas

	ANTIGUA & BARBUDA
	ARGENTINA
	ARUBA
	BAHAMAS
	BARBADOS
	BELIZE
	BOLIVIA
	BRAZIL
	CANADA
	CHILE
	COLOMBIA
	COSTA RICA
	CUBA

Asia / South Pacific

	AFGHANISTAN
	AUSTRALIA
	BAHRAIN
	BANGLADESH
	BHUTAN
	BRUNEI
	CAMBODIA
	CHINA
	FIJI
	INDIA
	INDONESIA
	IRAN
	IRAQ

Europe

	ALBANIA
	ANDORRA
	ARMENIA
	AUSTRIA
	AZERBAIJAN
	BELARUS
	BELGIUM
	BOSNIA & HERZEGOVINA
	BULGARIA
	CROATIA
	CYPRUS
	CZECH REPUBLIC
	DENMARK

Functions of INTERPOL

- It primarily uses its police expertise and capabilities for **these three types of crimes**.
 1. Counter-Terrorism
 2. Organized crime
 3. Cyber Crime
- Interpol works in conjunction with all member countries and international organizations like the United Nations and European Union to combat international crime.

- **Main Functions of INTERPOL are as follows:**

- 1. Securing Global Police Communication Services**

Interpol has developed a global police communication system, which is known as I-24/7 (Information 24x7), which allows any member country to safely obtain and communicate data related to crime, criminals etc. The Liaison Bureau (LB) is connected to this Communication system and chief officer of any country can get Interpol services through Liaison Bureau.

- 2. Operational data services and databases for police**

Through the database I-24/7, member countries can get this data directly when they need it. Here member countries, including the security forces have direct and immediate access to a wide range of databases, stolen motor vehicles, including stolen and lost travel documents, stolen works of Art, nominal data, DNA Profile, counterfeit payment cards and fingerprints.

3. Issuing of notices against global criminals

INTERPOL also publishes severe crime-related data through a system of international notices. INTERPOL's General Secretariat (IPSG) issues notice in the four official languages of the organization i.e. English, French, Arabic and Spanish at the requests of member countries.

4. Reducing organized and new types of crime

INTERPOL is committed to reduce organised crimes, criminal networks and the destruction of illegal markets and protection of weaker communities. INTERPOL issues 7 types of notices to nab the criminals all over the world. The Indian government is taking the help of INTERPOL to arrest Dawood Ibrahim who is wanted in Mumbai serial blasts, 1993.



5. Counter Terrorism Operations

One of the main works of INTRPOL is to ensure global solidarity against international terrorism and measures to deal with chemical attacks, biological attack, radiological attack, nuclear attack all over the world.

6. Cyber Crime

Cyber crime is the new type of challenge of the 21st century. There are so many incidences taking place related to cyber crime all over the world. As recently Ransomware attack shook the world by hacking the system of so many organisations all over the world.

195 MEMBER COUNTRIES CONNECTED THROUGH A SECURE NETWORK



INTERPOL'S CRIME PROGRAMMES



We provide a range of policing expertise and capabilities to our member countries, supporting three main crime programmes:

COUNTER-TERRORISM

Assisting member countries to prevent and disrupt terrorist activities through the identification of individuals, networks and affiliates.

ORGANIZED AND EMERGING CRIME

Targeting and disrupting international criminal networks; identifying, analysing and responding to criminal threats.

CYBERCRIME

Making cyberspace safe for all by supporting member countries to prevent and investigate cyberattacks.

Organization

- Interpol's day-to-day operation is managed by a General Secretariat under the direction of a secretary general, who is appointed for a five-year term by the General Assembly.
- The General Assembly, consisting of one delegate from each member country, is Interpol's supreme decision-making body.
- An Executive Committee of 13 members, each representing a different region of the world, is appointed by the General Assembly at its annual meeting.
- The Executive Committee oversees the implementation of decisions made by the General Assembly and supervises the work of the secretary general.

- Each member country has a domestic clearinghouse—called the National Central Bureau, or NCB—through which its individual police forces may communicate with the General Secretariat or with the police forces of other member countries.
- Interpol relies on an extensive telecommunications system and a unique database of international police intelligence.
- Each year, Interpol's telecommunications staff handles millions of messages in the organization's four official languages: Arabic, English, French, and Spanish
- Interpol was reorganized in 2001 following the September 11 attacks on the United States. The new post of executive director for police services was created to oversee several directorates, including those for regional and national police services, specialized crimes, and operational police support.



FBI

- Federal Bureau of Investigation (FBI), principal investigative agency of the federal government of the United States.
- The bureau is responsible for conducting investigations in cases where federal laws may have been violated, unless another agency of the federal government has been specifically delegated that duty by statute or executive fiat.
- As part of the Department of Justice (DOJ), the FBI reports the results of its investigations to the attorney general of the United States and his assistants in Washington, D.C., and to the United States attorneys' offices in the country's federal judicial districts.

Organization

- The headquarters of the FBI is located in Washington, D.C.
- The FBI has more than 50 field offices located in large cities throughout the United States and in Puerto Rico.
- It also maintains several hundred “satellite” offices, called resident agencies, and several dozen liaison posts in foreign countries to facilitate the exchange of information with foreign agencies on matters relating to international crime and criminals
- The FBI is headed by a director, who originally was appointed by the attorney general.
- Legislation enacted in 1968 empowered the president of the United States, subject to the advice and consent of the Senate, to appoint the director to a 10-year term.
- The bureau has a large staff of employees, including more than 10,000 special agents who perform investigative work.
- The majority of these agents have served with the bureau for 10 years or more

Functions of FBI

- The investigative jurisdiction of the FBI extends to most federal criminal laws in more than 200 areas, including computer crime (cybercrime), embezzlement, money laundering, organized crime (including extortion and racketeering), piracy and hijacking, sabotage, sedition, terrorism (including ecoterrorism), and treason.
- In areas relating to domestic security, the FBI is responsible for correlating intelligence and disseminating it to other federal agencies.
- It also investigates violations of federal civil rights law, such as racial discrimination in employment and voting and police brutality.
- Through its Uniform Crime Reporting program, the bureau annually publishes a comprehensive summary of criminal activity in the United States; it also publishes a specific report on hate crimes.
- It collects evidence in most civil cases in which the United States is or may be a party, and it investigates individuals who are being considered for employment in sensitive positions within the federal government.

- Although the bureau investigates crimes committed outside the United States against U.S. citizens and U.S. interests (such as embassies), it may arrest individuals on foreign soil only in cases where the U.S. Congress has granted it jurisdiction and where the host country consents.
- The FBI has concurrent jurisdiction over narcotics violations with the Drug Enforcement Administration, which is also part of the Department of Justice.

