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Microbiological Chronotanatodiagnosis. The innovative way to determine the time of death

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Microbiological Chronotanatodiagnosis. The innovative way to determine the Time of Death. As the result of our investigation about cadaverous decomposition and putrefaction phenomena, which is associated to human microflora and the post-mortem evolution of corporal temperature, our objective is to provide a new tool to diagnose time of death, through microbiological indicators. This is useful for Criminalists, Crime Scene Investigators or Police Forensic Services, Coroners and Medical Examiners, Medicolegal Death Investigators, Criminal Investigators or Homicide Detectives, Attorneys or Judicial Investigators and similar professionals. The results of our laboratory culture of 592 *Propionibacterium acnes* microbiological traces, that were taken from the skin of 40 living individuals and 29 corpses and the statistical analysis of it, using Lineal Regression, show that 97% of the variance for the variable '*hours from death*' - with respect to corpses with certified time of death - may be predictable by means of the growing parameters of *Propionibacterium acnes*. About the crime origin of the cause of the death, our data reveal that the ratio '*hours from death/P. acnes* growing parameters, show lower values in case of accidental deaths and higher values on natural ones. So that, in order to materialize the evidence in court, the professionals can obtain at least two basic pieces of information with this innovative tool that we offer: When the death happened? Was it an intentional death?

Biography

Isabel C Fernández Corcobado has completed his PhD from Granada University Faculty of Medicine & EEZ Research Center of the Spanish National Research Council (CSIC). She is the director of Innovative Science Forensic's Office, an On-Line Service for Professionals of Forensic Sciences & Criminalistics. She has published the innovative technique of Microbiological Chronotanatodiagnosis to determine the Time of Death – as mentioned in the EurekAlert news service operated by the American Association for the Advancement of Science to provide with an add-in tool to the existing methods, in order to make easier to materialize the evidence in court.

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