

L'Eprouvette: A Special Place to Get a Flavor of Research and to Debate about Research Issues

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Abstract: L'Eprouvette, the public laboratory of University of Lausanne, is dedicated to science outreach and promotion of dialogue between scientists and society. The laboratory provides direct access to techniques and instruments in order to engage in informed and critical dialogue about the social and ethical issues of sciences.

Keywords: Biology · Public laboratory · Science and society



The Eprouvette, a meeting place between scientists and public situated in the heart of the University of Lausanne – Photo credit: Felix Imhof © UNIL.



A public laboratory whose mission is to inform the public and to engage the dialogue on scientific research issues. – Photo credit: Nicole Chuard © UNIL.

The Eprouvette, the Public Laboratory of the University of Lausanne Invites the Public to Get a Flavor of Research and to Debate about Research Issues

L'Eprouvette (literally 'the test tube' – <http://www.eprouvette.ch>) is a public laboratory localized within the University of Lausanne (UNIL). It is a part of the Science-Society Interface (www.unil.ch/interface), a department that aims to promote dialogue with the public, doing research,

and teaching in the field of science, technology and society. Different topics are presented at L'Eprouvette lab, mainly in molecular biology, for example: discovery of DNA (DNA extraction with simple tools such as salt, soap, and alcohol); production of genetically modified organisms (bacterial transformation); genetic disease diagnosis or crime scene investigations (DNA digestion); detection of a specific DNA sequence in a genetically modified soya (PCR); but also in neuroscience, physiology, environment and ecology, and forensic science.

A Space where Children and Adults can Discover Principles of Biology

The laboratory holds facilities with a 70 m² public and colorful space with all the basic biology tools (lab coats, microscopes, centrifuges, PCR and electrophoresis apparatus, etc.) and a bus to go outside the

campus to schools, markets, public leisure parks, science fairs, and even to cow fields in the Swiss mountains! Nearly 5000 people per year participate in the various activities proposed by L'Eprouvette. 45% are school students who generally come with their biology teacher or for their diploma practical work, and 55% are families, adults, business groups, NGOs, and social or professional associations interested in the sciences.

To Experiment, Learn and Discuss Social and Ethical Issues of Genomics

One essential goal of L'Eprouvette is to provide direct access to material and methods in order to engage in informed and critical dialogue on biosciences. The visitors are immersed in a research setting for the moment: wearing a lab coat is mandatory (but not the crazy haircut and the big glass-

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es)! Moreover, it presents the research conducted at UNIL and allows direct contact with researchers. All lab activities are designed by a biologist's team trained in science communication, in collaboration with UNIL and Centre Hospitalier Universitaire Vaudois (CHUV) researchers. The workshops, constantly updated, have a playful propensity to open the debate on research and its implications in daily life, and to give people an opportunity to consider the social and ethical issues of science. For example, visitors can perform a pseudo-genetic test to identify a carrier of Duchenne muscular dystrophy, and discuss the social implications of genetic diagnosis, preimplantation genetic diagnosis, and direct-to-consumer genetic testing.

Days for Patient Groups with Rare Diseases

The team also produces pedagogical tools and activities for its partners and groups (NGOs, museums) on demand. For example, L'Eprouvette works with patients' associations concerned with rare genetic diseases, to offer on demand trainings in collaboration with lawyers, geneticists, physicians, and researchers. During 1 to 3 days, patients and their relatives can get closer to current fundamental research, applied research on genetic diagnosis of their disease, and talk with physicians and



Photo credit: Céline Michel.

lawyers of their difficulties with health insurance, and missing or delayed diagnosis.

Scientists and Students of the Campus in Touch with the Public

L'Eprouvette also offers the opportunity to advanced students and young re-

searchers to take part in the life of the public lab, conducting workshops for children as well as for adults. It gives them the opportunity to meet citizens and gain a better understanding of public attitudes toward scientific research, as well as to practice science communication and dialogue.

Meetings in the Field

Furthermore, L'Eprouvette participates in numerous scientific events such as UNIL open days, Passeports Vacances, Fête de la Nature, Science night in Geneva, Gene days (Swiss Life Sciences festival), Science and City festival, French Fête de la Science; and public happenings, trainings for teachers and various student projects management.

A Multidisciplinary Approach

L'Eprouvette has many partners, especially at UNIL (Institute of Forensic Science, Ethos – Interdisciplinary ethics platform, Faculty of Biology and Medicine), CHUV, Museums and foundations (Zoology museum, Olympic Museum of Lausanne, Fondation Claude Verdan, but also l'Elysée – photography museum...), EPFL, science centers, schools, NGOs (Training days for genetic diseases patients associations).

To discover L'Eprouvette, its philosophy and actions, watch our promotional movie on <http://www.eprouvette.ch>.

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The specially equipped bus offers more people an opportunity to consider the social implications of science.