



“Fondazione Arpa” Prize

Overview

On the occasion of the International Robotics Festival, that will be held in Pisa, 7-13 September 2017, Fondazione Arpa (<http://www.fondazionearpa.it/>) will award the Arpa Prize for Visiting Fellowship to surgeons, scientists with technical background (engineers and computer scientists, henceforward scientists) from a wide range of disciplines in the field of robot-assisted surgery.

The Arpa Prize is established with the main purpose to offer young surgeons, and scientists the opportunity to broaden their training and grow their international network. The fellowship provides a unique opportunity to visit the following clinical and research centres in Pisa (Italy): Multidisciplinary Centre of Robotic Surgery at Cisanello Hospital of the Azienda Ospedaliero-Universitaria Pisana and the Centre for Computer Assisted Surgery (EndoCAS) of the University of Pisa. Successful applicants will have the opportunity not only to learn and acquire new skills, but also to give their own contribution to current and/or future scientific projects.

The following activities will be supported:

- clinical training in robot-assisted surgery;
- clinical training in robot-assisted surgery along with research activity at EndoCAS;
- research at EndoCAS collaborating with engineers within one or more research projects with a possible collaboration with expert surgeons practising robot-assisted surgery. This last option is available only for scientists.

For the successful applicants, there will also be the opportunity to have contacts with the numerous academic and industrial laboratories in the Pisan area.

Centres and Tutors

At Multidisciplinary Centre of Robotic Surgery, directed by Prof. Franca Melfi, surgical interventions are routinely performed from the following specialties: thoracic surgery, urology, gynecology, general surgery (hepato-biliary-pancreatic surgery, colorectal surgery, bariatric surgery, endocrine surgery, upper gastrointestinal surgery, transplantation surgery).

The mission of EndoCAS (www.endocas.org), accredited by American College of Surgeons for the training of surgeons through simulation, is to develop breakthrough technologies based on engineering and information technologies to improve the current surgical procedures and reduce their invasiveness by means of an optimal use of medical imaging.

The research areas addressed by the centre are:

- Surgical simulation (robot-assisted surgery, laparoscopy, and endovascular surgery);
- Surgical navigation systems for minimally invasive treatments;
- Augmented/Mixed reality for surgery within VOSTARS project funded by European Union (<http://www.vostars.eu/>).

EndoCAS hosts some of the finest validated commercial simulators, including: dV-Trainer by Mimic simulator for robot-assisted surgery, and LapSim by Surgical Science with haptic feedback for laparoscopy, and Angio Mentor by Symbionix for endovascular procedures. Moreover, scientists at EndoCAS developed a physical simulator for endovascular surgery.

The references are:

- Prof. Ferrari Mauro – Vascular Surgeon and Director of EndoCAS centre;
- Ing. Ferrari Vincenzo – MSc and PhD in Computer Science Engineering and Coordinator of EndoCAS centre;
- Ing. Moglia Andrea – MScME and PhD in Microsystems Engineering and responsible of simulation of EndoCAS centre.

Financial Support

Fondazione Arpa will cover travel expenses and room and board of the fellowship. The number of the fellowship supported by Fondazione Arpa is variable and will be decided on the basis of the quality of the projects presented by the applicants.

Successful applicants will spend a period at least of six months for their fellowship. At the completion of their stage, they will be required to prepare a report of the experience and training received and present the results of their work to the reviewing board of the University of Pisa. The visiting fellowship can be renewed several times at the end of the first period for additional time depending on the results of the project.

Eligibility Criteria

To qualify for this fellowship, candidates have to meet the following requirements:

- Have a master's degree in Medicine or in Engineering, with a PhD as a plus;
- Have a Specialty Board certification;
- Must be younger than 35 years old at the deadline of application;
- Evidence of professional and scientific activities (publications, and participation at congresses/ conferences) at international level;
- Good working knowledge of English.

Selection Process

Applicants must submit their curriculum vitae and a structured proposal, as follows:

- Summary (max. 250 words)
- Description of Problem/Background (max. 500 words)
- Purpose, Hypothesis and Methods of Research (max. 500 words)

Only proposals from the following fields will be considered:

- Innovative clinical applications in one of the surgical specialties practised at Multidisciplinary Centre of Robotic Surgery (see above);
- Surgical simulation, training and skills assessment;
- Cost-effectiveness of robot-assisted surgery;

- Human factors/ ergonomics in robot-assisted surgery;
- Surgical navigation and augmented reality applied to robot-assisted surgery.

Evaluation will be based on quality of the proposal and profile of the applicant. Quality of proposal will be judged on the following criteria: novelty and clinical relevance, clarity of research goals, and feasibility. Candidates profile will be assessed on: number of published papers on the area of interest in peer-reviewed journals (better as first or last author), and previously received grants on the topic. Only successful applicants will be notified of the decision of the reviewing board.

Where to submit the proposal

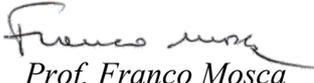
Applicants must submit by email their proposal along with a reference letter to: info@fondazionearpa.it

Deadline date

December 10, 2017.

Fellowships start date

The fellowship should start in February 2018.


Prof. Franco Mosca
President
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