

## A Positive Spiral of Surgical Education & Research by Experimental Microsurgery from **ISEM West Branch 2015**

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A key concept in surgical education and clinical care is to take a concept from bench to clinic and use feedback from the clinical results back to basic research. Microsurgery is also applied both experimentally and in the clinic. A training of experimental microsurgery led to the development of several rat models for organ transplantation and regenerative medicine. These skills have been also used in hepatic artery reconstruction in living-donor liver transplants carried out at the Kyoto University Hospital.

It is essential that these skills are taught appropriately, that competency is evaluated and that the skills are developed throughout the career of the surgeon. However, the life of university surgeons is being stressed with hard work and lower income than their privately employed colleagues in Japan. Thus, it is necessary to maintain positive motivation to acquire, maintain and improve advanced skills. Against this backdrop of increasing demands is the increasing difficulty of recruiting young surgeons.

A logical approach to these problems is to develop a “positive spiral” for surgical education. Kobayashi & Lefor propose this plan for the systematic education of surgeons using three sequential concepts (ISEM 2014):

1. Curriculum: teaching is driven by a written curriculum which is given to the students to guide their learning
2. Competency: after the teaching, learners are evaluated to see if they have acquired the desired competency
3. Clinical outcomes: learners report their clinical experiences over the long term, to evaluate the value of the training in the clinical practice of medicine

These 3 concepts are applied in a cyclical manner, so that after evaluating clinical outcomes, the curriculum can be improved and updated. By applying this cycle repeatedly, the system improves. Thus, this approach leads to a “positive spiral” of surgical education. The armamentarium for these approaches continues to expand through ISEM West Chapter, focusing on education for young surgeons in Japan.

So, we decided to start ISEM West Chapter form this spring.



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