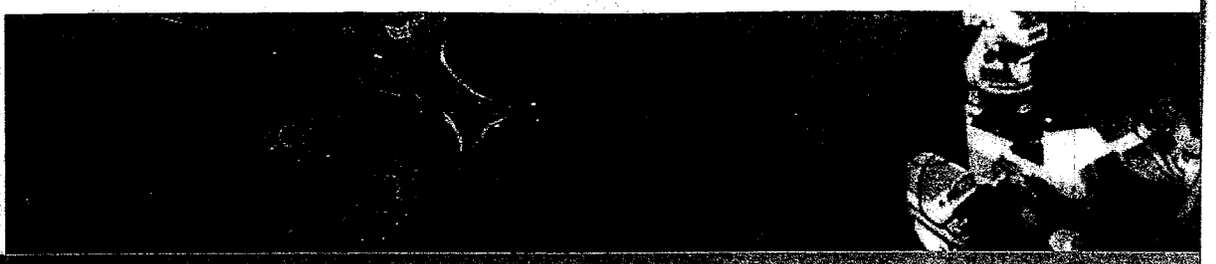
erc BIOMIM



First meeting in Grenoble, April 10-12, 2013

SCIENTIFIC PROGRAM

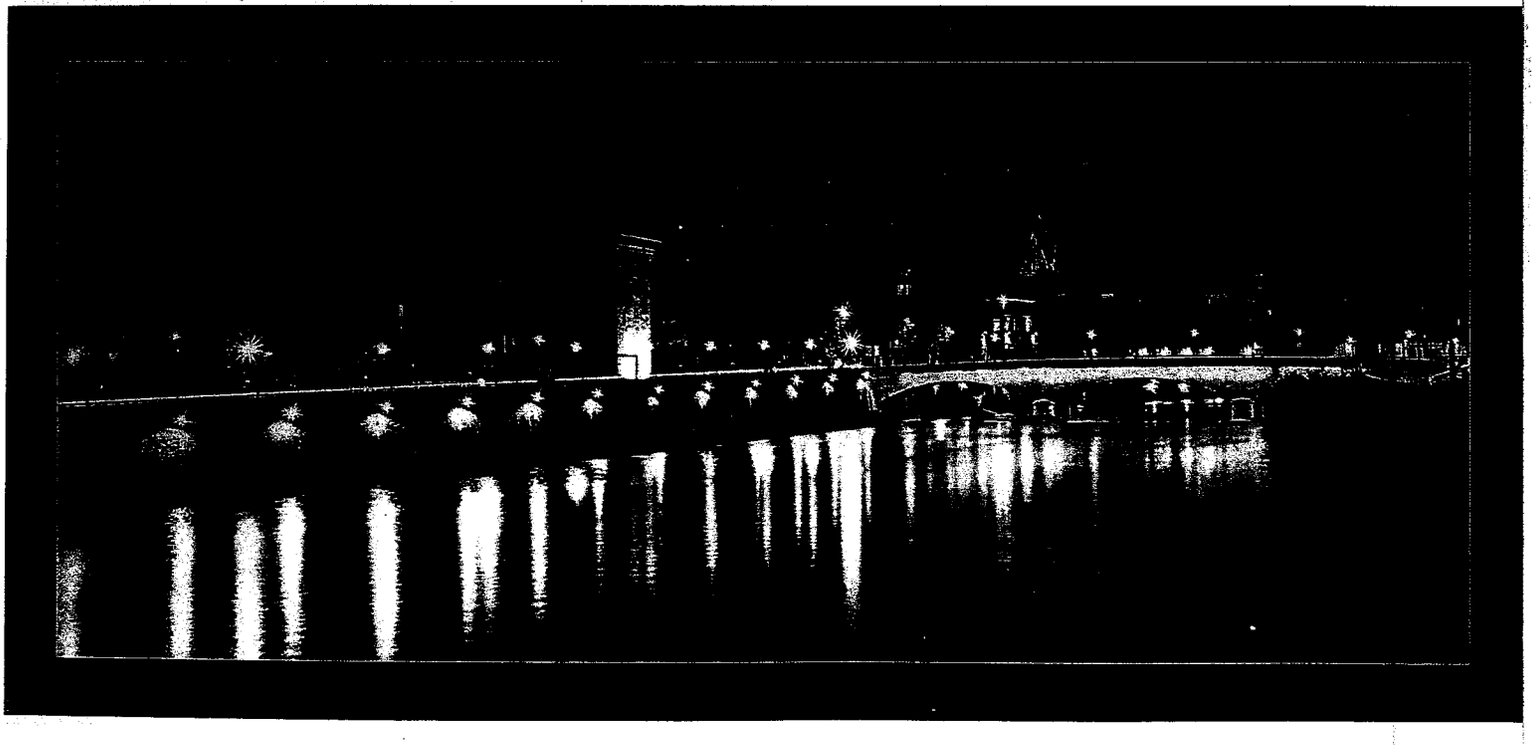


Photo : Grenoble by night by Naresh Saha

First ERC BIOMIM Meeting 2013

At the frontier between Materials and Biology

April 10-12, Grenoble, France

CONFERENCE LOCATION : Grenoble INP - Phelma MINATEC,
3, Parvis Louis Néel, GRENOBLE

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Nanostructured multilayer films exhibiting using mussel adhesive inspired polymers

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Inspired by the structure and properties of mussel adhesive proteins, new thin coatings were developed using the layer-by-layer methodology (LbL) containing chitosan (CHT) and DOPA modified hyaluronic acid (HA). . The preparation of multilayers using LbL is achieved by dipping a substrate alternately into solutions of the two polyelectrolytes solutions. Quartz-crystal microbalance demonstrated that the conjugate HA-DOPA can form multilayers with CHT. The nanostructured surfaces exhibited distinct properties with respect to the conventional CHT/HA ones, including improved adhesive properties and an enhanced biological performance. The results showed that the obtained substrates could find applications in different biomedical applications where adhesiveness and biocompatibility are simultaneously required.