



Osmotic Motor: OSMOTOR

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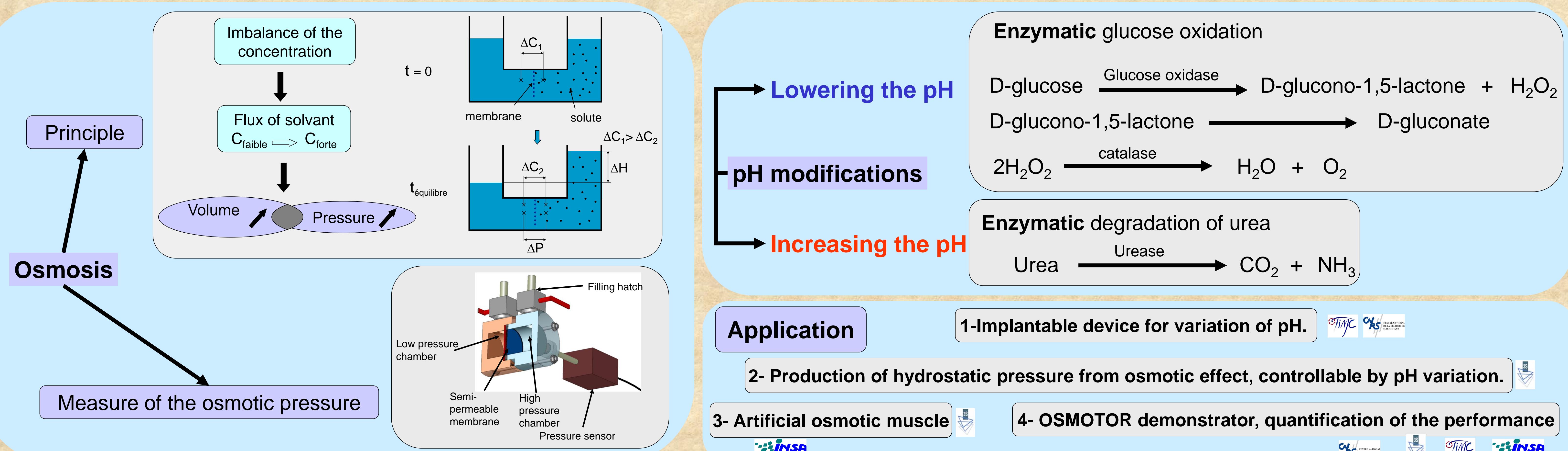
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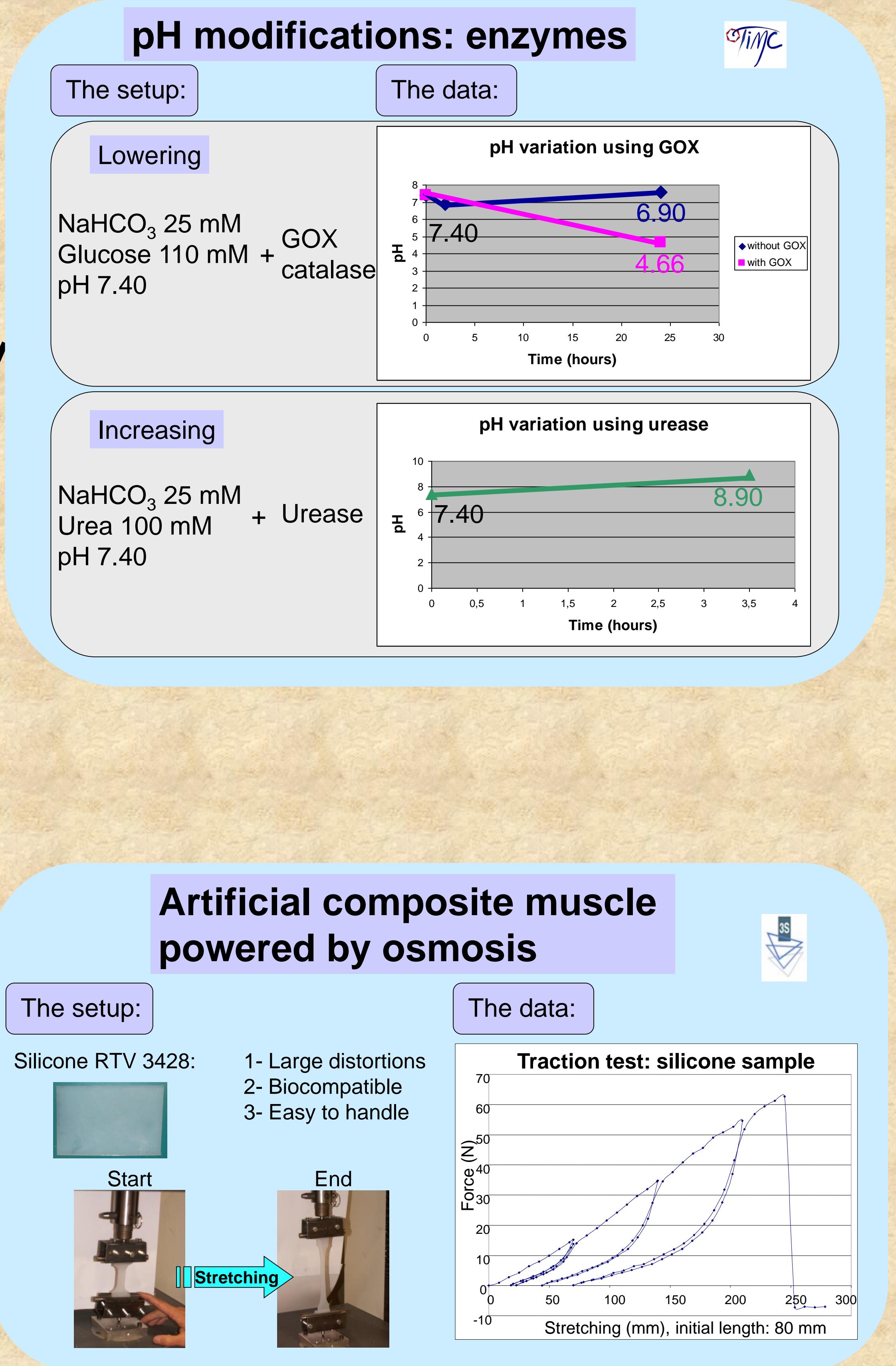
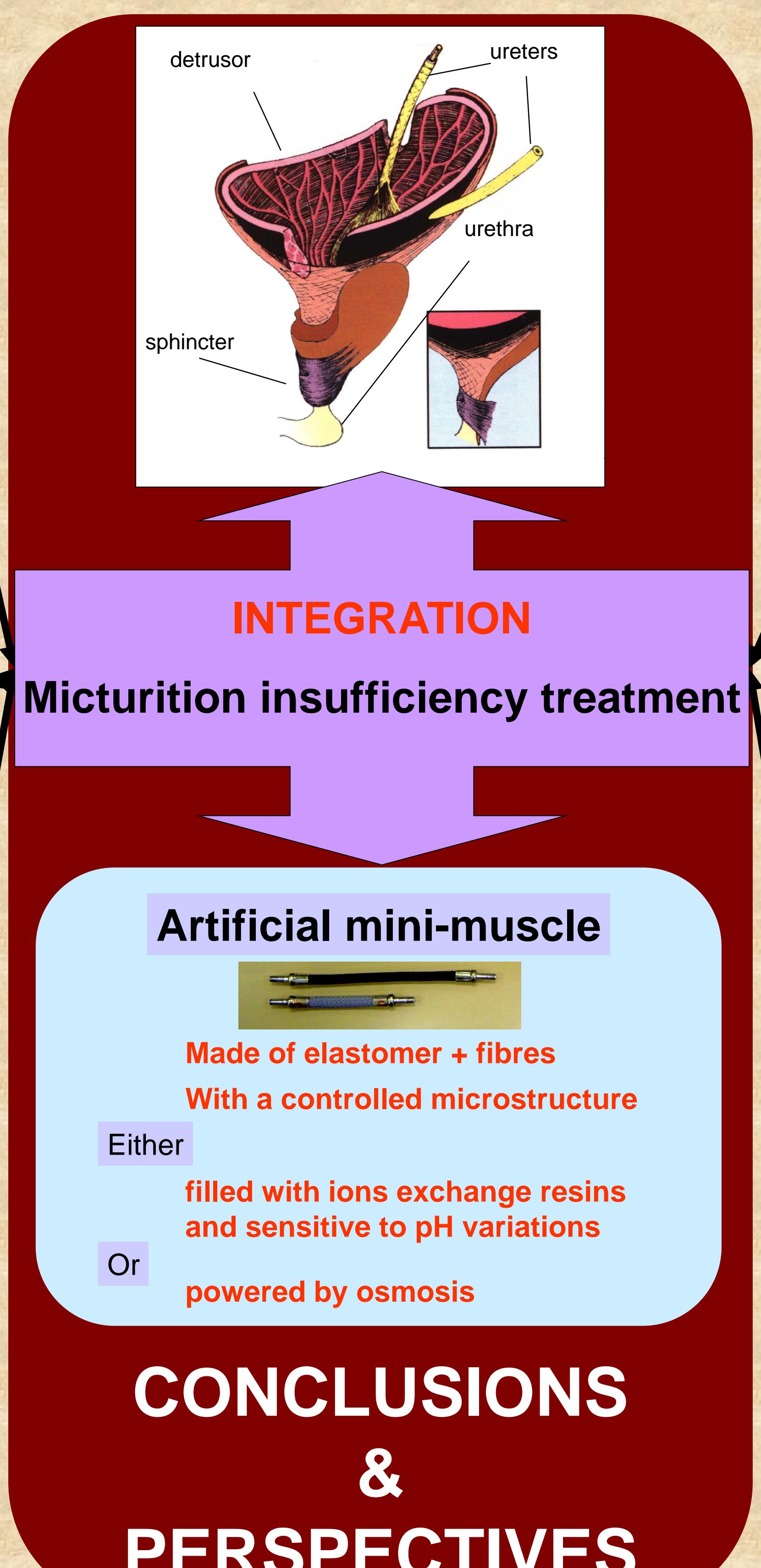
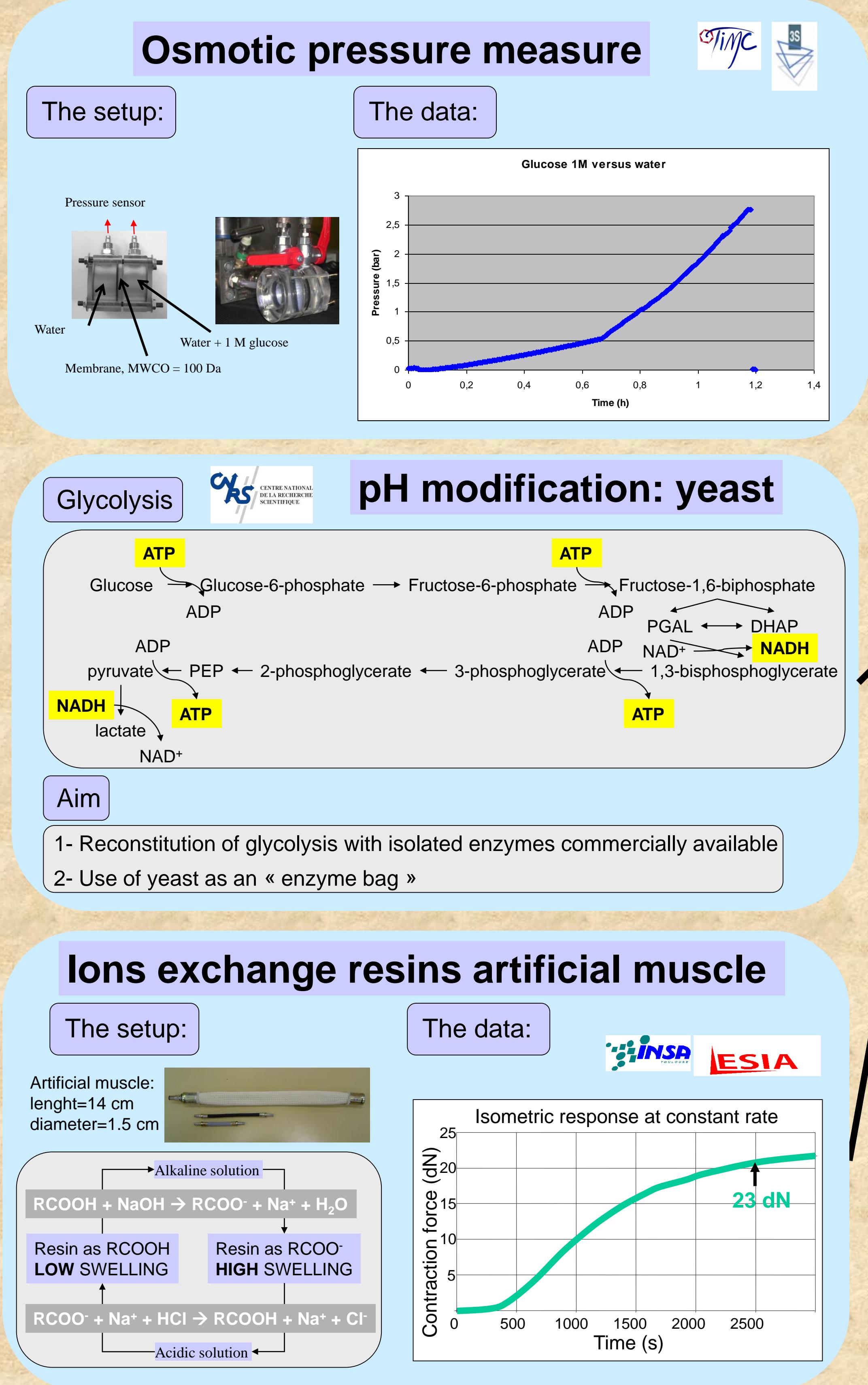
ABSTRACT

Our objective is to prove the feasibility of transforming the chemical energy of molecules that are naturally present in the organism in a mechanical energy that can be used to compensate for failure of physiological functions. We propose to explore the potential of osmotic energy, which is an interesting intermediate between chemical energy and mechanical energy, and to test an OSMOTOR (OSMOTic MOTOR). The (patented) principle of OSMOTOR is to induce cyclic variations of osmolarity in two compartments that are separated by a semi-permeable membrane. The variation of osmolarity results in movements of liquid under pressure, which corresponds to a retrievable mechanical work. The device is designed to be implanted in the human organism, from which it is separated by semi-permeable membranes that let nutrients necessary for the activity of the OSMOTOR flow in, and that let waste flow out. The membranes also protect the organism from the substances contained inside the OSMOTOR, and the latter from the defence mechanisms of the organism.

INTRODUCTION



RESULTS



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