

<b>Title:</b>	<b><i>"Models" in biomedical physics: from in vitro cell systems to population studies</i></b>
<b>Lecturers:</b>	N. Protti, G. Baiocco
<b>Duration:</b>	24h (lectures/labs)
<b>CFU:</b>	4
<b>Period:</b>	February – June 2024
<b>Content:</b>	<p>When physicists are involved in biomedical research they are confronted with a different conception of what is a "model": indeed in the biomedical field the word "model" refers not necessarily to a formal mathematical representation of the phenomenon under investigation, but rather to a particular system that can be studied as a surrogate of the real one, both with theoretical and experimental approaches, allowing to focus on relevant aspects and gaining the desired information to be further translated into knowledge on the real phenomenon of interest.</p> <p>In this context, the course proposes an excursus on different models adopted to study biological phenomena, starting from standard in vitro cell cultures, organoids and 3D tissue replicas, organ-on a chip systems, in vivo models, finally extending the conception of "model" to a population of subjects/patients for clinical or epidemiological studies.</p>

**Notes**