Scuola di Dottorato in Bioscienze e Biotecnologie
Dipartimento di Scienze Biomediche Sperimentali
Istituto Veneto di Medicina Molecolare

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Aula C piano rialzato
Complesso Vallisneri

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Peptide aptamers as precision tools for dissecting signaling pathways: application to NGF signalling

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While systems biology approaches analyzing the genome, proteome, interactome etc. are increasing our understanding of complex regulatory networks, identification of key proteins in signaling pathways that regulate cellular responses remains crucial for furthering our understanding of normal cellular processes and pathological perturbations thereof. Peptide aptamers, conceived to conceptually resemble antibodies, are small combinatorial proteins with a constant scaffold presenting a variable region. Their use for the identification and validation of novel targets and discovery of novel therapeutics *in vitro*, in cellular models, and *in vivo* in animal models for human disease will be discussed with preliminary results regarding their implementation for the study of **Nerve Growth Factor** signalling.