

**Entity:** Vall d'Hebron Institut de Recerca (VHIR)

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**Research group, Unit or Department:** CIBBIM- Nanomedicine Drug Delivery and Targeting

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**Student's tutor:** Depending on the research line chosen the tutor will be Simó Schwartz, Petra Gener, Ibane Abasolo or Yolanda Fernández.

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**Positions available:** 1-2

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**Research lines:**

1. Cancer stem cells (CSC) in triple negative breast cancer cell lines. Development of a novel in vitro CSC model for testing multimeric protein as personalized nanomedicines.
  2. In vivo biodistribution of multimeric proteins targeted to CD44 antigen, for treatment of triple negative breast cancer
  3. Validation of novel membrane receptors for targeting triple negative breast cancers
  4. Development of in vivo Ewing Sarcoma xenograft mouse models for testing CD99 targeted and siRNA loaded nanodiamods
  5. Polyglutamic acid polymers for the combination therapy in advanced colorectal cancer
  6. Validation of TCP-1 peptide moiety for targeting drug loaded dendrimers to colorectal cancer
  7. siRNA against Firefly luciferase as a proof of principle for RNA-based therapies
  8. In vivo monitorable colon cancer cell lines by bioluminescence imaging (BLI)
  9. Functional validation of KIF4A in vivo
  10. Nanomedicines for improving the enzyme replacement therapy in Fabry disease.
  11. Recombinant proteins for treating Sanfilippo syndrome (MPSIII)
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**Period for the internship:** summer, first and second semester

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### Requirements:

- Degree in Life Sciences
- Good academic records (preferably above 2)
- Fluently in English
- Interest for research career

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**Salary:** Possibility to obtain a CIBER-BBN financial aid for young researchers (600€/month).

<http://www.ciber-bbn.es/es/ayudas-a-la-formacion>

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**Where to apply:** Interested candidates please send a letter of intention, CV and academic records to Dra. Ibane Abasolo ([ibane.abasolo@vhir.org](mailto:ibane.abasolo@vhir.org))

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