

**SCHEDA DISPONIBILITA' PER ATTIVITA' DI LABORATORIO PER ESAME FINALE (Laurea)  
CDL BIOTECNOLOGIE (triennale)**

<b>Relatore o co-relatore:</b>	
<i>Nome:</i>	Giuliana Pelicci
<i>Ruolo*:</i>	Associate Professor
<i>Disciplina*:</i>	BIO12 Biochimica Clinica e Biologia Molecolare
<i>* nel caso di laboratorio extra-universitario indicare la struttura</i>	
<i>Recapito telefonico e/o mail</i>	
<b>Relatore garante:</b>	
(nel caso di co-relatore esterno ai Dipartimenti afferenti al cdl)	
<b>N° tirocini disponibili I semestre</b>	1
<b>N° tirocini disponibili II semestre</b>	1
<b>Titolo e descrizione attività proposta</b>	(max 500 caratteri circa)
<p>Unraveling the molecular mechanisms that underlie brain metastasis formation from breast cancer.</p> <p>10-15% of patients with metastatic breast cancer develop brain metastases during the course of their disease. Few studies have been published regarding the identification of genes mediating breast cancer metastasis to the brain.</p> <p>We performed whole-exome sequencing of primary and metastatic samples from 10 matched patients. We identified 834 metastasis specific mutations not present in the primary. Of the 663 mutated genes, 78 were found in at least 2 patients, and 23 in at least 3 patients. We found that these genes are enriched for the complement and coagulation cascade pathway. RNA-mediated silencing or over-expression of selected genes identified on the genomic studies will be performed to demonstrate if they are critical for metastatic functions.</p>	
<b>Publicazioni recenti più significative</b>	(max 4) 1° autore, titolo, rivista, anno:

1. Setti M, Savalli N, Osti D, Richichi C, Angelini M, Brescia P, Fornasari L, Carro MS, Mazzanti M, **Pellicci G**. Functional Role of CLIC1 Ion Channel in Glioblastoma-Derived Stem/Progenitor Cells. *J Natl Cancer Inst.* 2013 Oct 10. [Epub ahead of print]
2. Richichi C, Brescia P, Alberizzi V, Fornasari L, **Pellicci G** Marker-independent method for isolating slow-dividing cancer stem cells in human glioblastoma, *Neoplasia*. 2013 Jul;15(7):840-7.
3. Brescia P, Ortensi B, Fornasari L, Levi D, Broggi G, **Pellicci G**. CD133 is essential for glioblastoma stem cell maintenance *Stem Cells*. 2013 Jan 10. doi: 10.1002/stem.1317. [Epub ahead of print]
4. Ortensi B\*, Osti D\*, Pellegatta S, Pisati F, Brescia P, Fornasari L, Levi D, Gaetani P, Colombo P, Ferri A, Nicolis S, Finocchiaro G, **Pellicci G**. Rai is a new regulator of neural progenitor migration and glioblastoma invasion *Stem Cells*. 2012 May;30(5):817-32.