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A novel cross-talk in signal transduction

Fact Sheet

Project Information

Grant agreement ID: FMBI950181

Project closed

Start date

1 February 1996

End date

31 January 1998

Funded under

Specific research and technological development programme in the field of the training and mobility of researchers, 1994-1998

Total cost

No data

EU contribution

No data

Coordinated by

Imperial Cancer Research Fund

 United Kingdom

Objective

Growth factors of the neuropeptide family (bombesin, vasopressin, endothelin, bradykinin) stimulate DNA synthesis and proliferation in cultured cells and are implicated as growth factors in a variety of biological processes, including development, tissue regeneration and tumorigenesis. Recently, bombesin and other neuropeptides have been shown to stimulate a rapid increase in tyrosine phosphorylation of multiple substrates in 3T3 cells. Two of these proteins could be identified as p125FAK, a novel cytosolic tyrosine kinase with no typical SH2 and SH3 domains and paxillin, a cytoskeletal associated protein.

We plan to examine potential interactions between the SH2 domains of a variety of signalling and adaptor proteins with proteins which are tyrosine phosphorylated in response to neuropeptides. In particular, it is planned to define whether p125FAK and paxillin can form complexes with the SH2- domains of other signalling molecules (p85alpha, Src, Crk, p130Cas, Grb-2, Shc, Sos) and whether paxillin is associated with p125FAK as a constitutive complex or if the complex is formed in response to ligands that stimulate tyrosine phosphorylation. This could clarify the signalling network involving cytoskeletal rearrangements, mitogenic pathways and cellular transformation.

Fields of science (EuroSciVoc)

[natural sciences](#) > [biological sciences](#) > [genetics](#) > [DNA](#)

[natural sciences](#) > [biological sciences](#) > [biochemistry](#) > [biomolecules](#) > [proteins](#)



Programme(s)

[FP4-TMR - Specific research and technological development programme in the field of the training and mobility of researchers, 1994-1998](#)

Topic(s)

[0302 - Post-doctoral research training grants](#)

[TL02 - Molecular Biology and Biochemistry](#)

Call for proposal

Data not available

Funding Scheme

[RGI - Research grants \(individual fellowships\)](#)

Coordinator



Imperial Cancer Research Fund

EU contribution

No data

Total cost

No data

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Participants (1)



Not available

 Italy

EU contribution

No data

Address



Total cost

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