

## ESF Network – PLASMON-BIONANOSENSE

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Expense claim for short visit grant #4370

Dear Sir, dear Madam,

Please find attached below the scientific report for the short visit to Prof. Hillenbrand's group in San Sebastian (Spain). The travel receipts will be found in the documents sent by mail.

The present claim includes the following items:

Description	Unit price	Currency	Number	total (€)
Flight London <-> Prague	233	GPB	1	266.90
Bus Bilbao Airport <-> San Sebastian	15.7	EUR	2	31.40
Taxi San Sebastian	6.79	EUR	0.5	3.40
Single bus tickets San Sebastian	1.4	EUR	4	5.60
			Total	307.29

Exchange rate GPB/Euro	0.873
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## Scientific report – short visit Yannick Sonnefraud in Rainer Hillenbrand's group

The short visit took place between the 4<sup>th</sup> and 8<sup>th</sup> August 2011 in San Sebastian (Spain), at the NanoGUNE centre and the CFM.

This visit aimed to visit the laboratories of Prof. Hillenbrand, and discuss technical details on the operation of the Scanning Near-field Optical Microscopes which have been developed in his group. A similar instrument exists at Imperial College London, in Chris Phillips' group, and we are planning on observing Fano type of plasmonic modes in gold nanostructures, as well as using the microscope for measurement on living tissues.

Meetings with Florian Huth and Jianing Chen allowed for an in-depth discussion on how to operate the instrument to achieve our goals. Collaborations were discussed where the Hillenbrand group could help with their expertise on the microscope, and the ICL group could provide some samples of tissues to be observed with the new spectroscopic methods being currently developed at NanoGUNE.