The GhEbER Lab news

Volume 2 August 2007

Hello all, and welcome to the summer edition of "Levi's Lab" paper.

End of the Year Party at the Interpool

The end of the year party at the Interpool was a success. We all gathered for a night of drinks, pool, and good company. Besides, Levi got a late birthday/thank you present which we all hope he enjoyed…
Till next year!

Projects Were Submitted, Goodbye to All Project Students

After a long year of hard work, the project convention took place on June 6th. The day began with a poster exhibition in which each of us presented the work he did the previous year. After a short lunch break we attended a seminar followed by a ceremony awarding some of the remarkable projects of the last year. That was a nice ending for a very long year, and we would like to say goodbye to Ester, Alva, Sivan and Raz, and wish them success wherever they will go.

New Members to our Lab

In the last couple of months we were joined by a couple of new friends.
Silvia has joined us from Italy, to work along side Daniel on MIPs. Benjamin came to visit from Germany, to learn a couple of new things in nanobiotechnology from the experts…
We are happy to have you here.

Congratulations to Rudi

We all would like to congratulate Rudi on his recent marriage, and wish him success wherever he will go. Enjoy Germany and please don't be a stranger!

Inside This Issue

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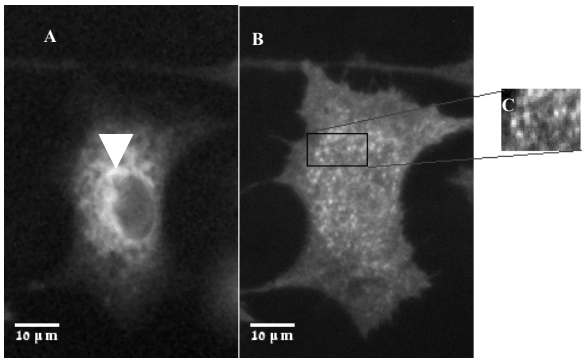
Yael's paper published

Yael's paper was recently
accepted to Biophysical Letters.
We're very proud of you!
Here attached the abstract of Yael's paper,
have fun.

We test here a previously proposed hypothesis about lateral heterogeneity of cell membranes, a model predicting heterogenity is maintained by a combination of delivery and intake of molecules with barriers to lateral free diffusion. To test the validity of the model, we observed GFP-tagged MHC-I patches on the plasma membrane of mouse fibroblasts, using TIRFM in real time. The dynamic characterization revealed the life course of these patches is comprised of delivery of molecules at a short instant, followed by a slow, exponential decay, corresponding to diffusion of the molecules over dynamic barriers to free lateral diffusion. The characteristic lifetime of the patches, extracted from the measurements, is approximately 30 s, in excellent agreement with the predictions of the model.



two modes. A – Conventional epi-fluorescence. B- TIRFM. The dark nucleus is visible in A, surrounded by a bright region corresponding to the endoplasmic reticulum (ER) (white arrow). The MHC-I patches on the plasma membrane are clearly observed in B, as bright dots, and no fluorescence from the cell volume is excited: the ER is absent, the nucleus is not visible. C- Zoom in of the field indicated in B, showing some (diffraction limited) fluorescent patches.

End of The semester