

The short scientific report

COST STSM Reference Number: COST-STSM-FA1205-34540

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COST Action: FA1205 STSM

type: Regular (from Israel to Norway)

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STSM Topic: AQUAGAMETE

Host: Finn-Arne Weltzien, Norwegian University of Life Sciences, Oslo (NO), finn-arne.weltzien@nmbu.no

1. Purpose of the STSM;

During my visit in Oslo, at the NMBU I focused on electrophysiological analyses of gonadotrope cells in Medaka fish. Using protocols standardized in prof. Finn-Arne Weltzien's laboratory. The aim of our project is to investigate the nature and regulation of cell-to-cell connections in the pituitary as a means of synchronizing hormone release.

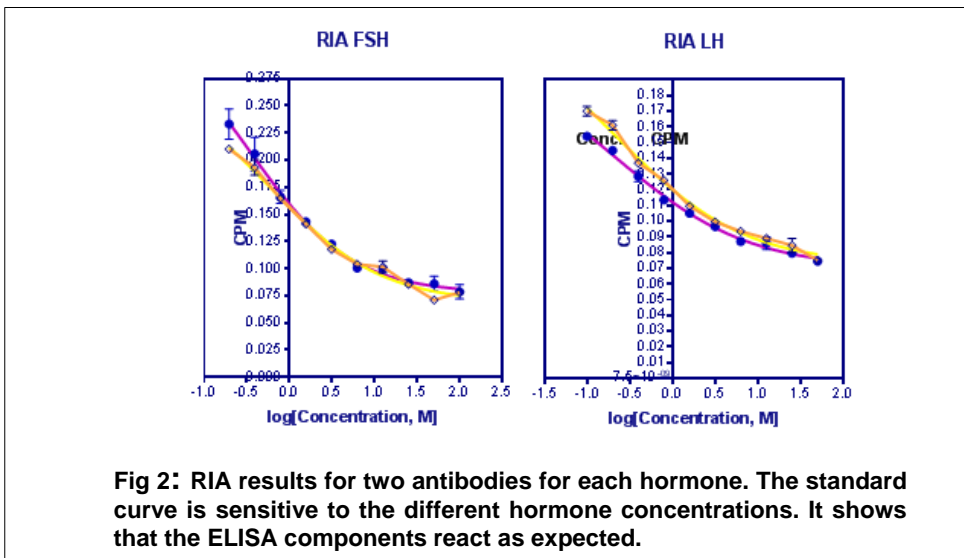
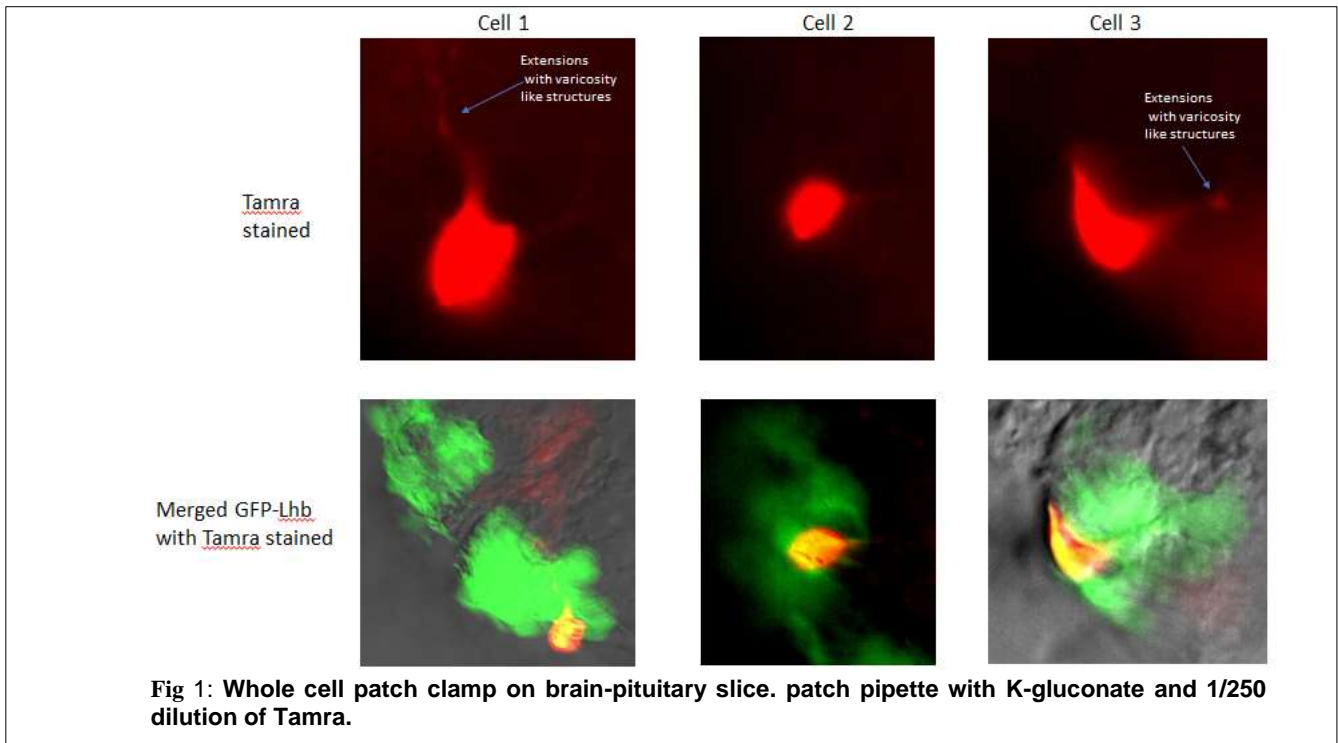
2. Description of the work carried out during the STSM

Our work was mainly focused on two main methods. Electrophysiology and ELISA. For the first method we had 2 aims: the first aim was to master a new method for me, in order to be able and continue what we have started here in Israel. And the second aim was to start to investigate the cell-to-cell connections. For the ELISA, our aim was to complete the establishment of protocol for FSH and LH in Medaka. This progress starts in Prof. Berta Levavi-Sivan's lab. And we had to make the final adjustments in Oslo.

Our Electrophysiology work, included recording from gonadotrope cells, from a fresh tissue. Part of that work was to improve the existing protocol, from the preparation until the patch clamping technic. By injecting Tetramethylrhodamine color for the first time in Medaka. We have tried to look for physical connections between two close cells. Along with this we have started to collect the cells recording data from the fresh tissue. We are aiming to compare those records with the previous records from culture cells.

The second object was the ELISA. We completed the standard curve for FSH and LH, and made a new protocol for Medaka.

3. The main results obtained



4. Future collaboration with the host institution

We are planning of working together on the new data we have got. And hopefully to have more collaboration in the future.

5. Confirmation by the host institution of the successful execution of the STSM

As head of the host laboratory, I confirm that Mr Yaron Cohen has successfully executed the herein described STSM in my laboratory and under my supervision.

**Supervisor signature:
Finn-Arne Weltzien**



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**Student signature:
Yaron Cohen**



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