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Summary:	In this document we sum up all the exchanges and training activities performed during the first 18 months of the project covering Phd exchanges (see reports in annex), Permanent staff exchanges as well as training grants.
Keyword List:	Exchange of Phd, exchange of researchers, training grant

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Report on WP3 activities

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Introduction

The main objective of work package 3 "training and exchange of staff" is to allow the transfer of knowledge and know-how between North and South research centers around the Mediterranean area through training and exchanges of staff (Phd students, Post-doc and researchers).

In order to achieve this aim, we have developed a methodology including different patterns of application forms and report forms (see Deliverable n°4 *"Exchange Plan and Methodology"*).

Organization of the exchange program

At the beginning of the project, WP3 leader worked together with the Project Manager, in order to organize the exchanges. The methodology was discussed and approved by the Strategic Management Committee (SMC) at the first SMC meeting in Alexandria (15th December 2009) and later presented to the whole Consortium at the Kick-off meeting in Marseille (14th-16th January 2010). Three different kinds of exchanges were proposed:

- PhD students would stay during a period up to 6 months in EU centers to conduct part of their research under co-supervision of an MPC (Mediterranean Partner Country) supervisor and an EU (European Union) one.
- Post-Docs would spend longer periods (up to 12 months) in EU laboratories to acquire advance training.
- Experienced researchers (two-way exchanges). Researchers from a Partner (P) or Associated Partner (AP) would spend a short period of time (up to one week) in the research center of another P or AP to either reinforce existing collaborations or create new ones.

It was decided that each PhD student enrolled in the exchange program would receive an allowance of 800 € / month provided by the hosting lab. The travel expenses would be covered by the sending lab.

The deliverable n°4 *"Exchange plan and methodology"* described some key points about the methodology to be followed to organize those exchanges:

- Criteria for the selection of the people who would participate in the exchanges.
- Evaluation of the results of the exchange.

- Methodology to organize the exchanges based on a web page application.
- Particularities of the organization of exchanges for the first year.

Flexibility in the organization of exchanges was encouraged, so that we leave room for special cases to be considered.

Waves of Phd Exchanges

First wave of exchanges

During the kick-off meeting (Mid January 2010), Beatriz Rey from UPVLC (WP3 leader) consulted all members who were present and asked them to fill out a table with potential exchanges for 2010. The IAB (Internal Advisory Board) evaluated the applications which were presented and all of them (11 applications) were agreed by the SMC by Monday 1st March 2010. The first exchanges started early May 2010.

Eight out of the eleven foreseen exchanges have taken place. Three of them turned down the offer mainly for personal reasons.

First wave summary :

Student name	Sending institution (supervisor)	Hosting institution (supervisor)	Dates	Gender	Theme of research
Ben El Fakir Malika	Cadi Ayyad University, Marrakech, Morocco (Ba M'hamed)	INCM (Boussaoud)	May to October 2010	F	Learn by observation
Mahmoudi Abdelhak	Mohammed V University (Bouyakhf)	INCM (Brovelli)	May to Sept 2010	M	support vector machines (SVM) and artificial neural networks (ANN)
Hihoud Chaima	Abdelmalek Essaadi University (AKNIN)	UPVLC (Rey)	June to Dec. 2010	F	Analysis of brain activity to virtual environments

Addoudi Kaoutar	Abdelmalek Essaadi University (Errami)	CIPF (Felipo)	June to Dec2010	F	Hepathic encephalopathy
Salhi Dounia	Mohammed V University (Lakhdar Ghazal)	CIPF (Felipo)	June 2010 to January 2011	F	Circadian rythms
Khalki Hanane	Cadi Ayyad University, Marrakech, Morocco (Chait)	Université de Bordeaux (Philippe de Deurwaerdère)	July and August 2010	F	Action of prenatal exposure to the extract of tobacco alkaloidson the dev of the offspring and its teratogenicity
Sabbar Mariam	Mohammed V University (Lakhdar Ghazal)	Université de Bordeaux (Abdelhamid Benazzouz)	Sept 2010 to March 2011	F	Works on lead toxicity and its consequences on circadian rythms, motor and cognitive behaviours
Chakir Ibtissam	Abdelmalek Essaadi University (Errami)	Université de Strasbourg (Patrick Vuillez)	October 2010 to March 2011	F	Circadian rythms

We notice that the first wave was only composed of Moroccan students who did exchanges either in France or Spain. This can be explained by the fact most of the already existing collaborations are between Morocco, France and Spain.

Second wave of exchanges

The second wave for Phd and Post-Doc Exchanges was launched early August 2010 on N€uromed website where each applicant could read the guidelines and download the appropriate application form, fill it out and upload it again on the website in a way that only SMC and IAB members can have access to the filled applications (on a restricted area of the website).

The deadline was set for 30th August 2010. We received 11 applications (10 Phd and 1 Post-Doc). The deadline for the evaluation was 30th September 2010. As a result of the evaluation, and for different reasons, 5 PhD exchanges were selected out of the 11 received applications. Finally, four exchanges took place in this second wave, as the fifth one turned down the offer for personal reasons.

Second wave summary:

Student name	Sending institution (supervisor)	Hosting institution (supervisor)	Dates	Gender	Theme of research
Chatoui Hicham	Cadi Ayyad University (Gamrani)	INCM (Boussaoud)	Nov 2010 to March 2011	M	Brain and dehydration
Ouzir Mounir	Hassan II University (Battas)	INCM (Boussaoud)	Nov 2010 to March 2011	M	Schizophrenia
Shahine Nermeen	Alexandria University (Moftah)	Yeditepe University (Kurnaz)	February to June 2011	F	Expression of FGF-2 and FGFR1-4 in the developing CNS of mice embryo
Bouabid Safa	Mohammed V University (Lakhdar Ghazal)	Université de Bordeaux (Abdelhamid Benazzouz)	May to Oct 2011	F	Effect of low dose chronic intoxication of lead and cadmium on the motor and non motor behaviours

This wave contains Moroccan and Egyptian students.

Third wave of exchanges

The third wave for Phd and Post-Doc Exchanges was launched 3rd November 2010 on N€uromed website. The deadline was initially set for 19th November 2010, but it was extended until 25th November 2010. 11 applications were received on the website (all of them corresponding to PhD Students). The IAB members were able to evaluate the applications by 10th December 2010.

Six candidates have been selected (3 Phd students for a renewal and three others as new candidates).

Third wave summary

Student name	Sending institution (supervisor)	Hosting institution (supervisor)	Dates	Gender	Theme of research
Mountaj Nadia	Mohamed V University (Himmi)	INCM (Besson)	March to May 2011	F	EEG acquisition and processing, application to the study of cognitive evoked potentials
Klouche Mounia Sarah	Mohamed V University (Benomar)	Université de Bordeaux (Philippe de Deurwaerdère)	April to July 2011	F	Impact of pollution on Biological Rythms of Perna perna: neuroendocrine control approach
El Yamani Fatima Zohra	USMBA, Fez University (Magoul)	Université de Rouen (Yon)	March 2011	F	Biological role of 2 novel neuropeptides: EM66 & 26RFa
Salhi Dounia[1]	Mohammed V University (Lakhdar Ghazal)	CIPF (Felipo)	February 2011- July 2011	F	Circadian rythms
Hihoud Chaima	Abdelmalek Essaadi University (AKNIN)	UPVLC (Rey)	May 2011	F	Analysis of brain activity to virtual environments
Addoudi Kaoutar	Abdelmalek Essaadi University (Errami)	CIPF (Felipo)	February 2011-July 2011	F	Hepathic encephalopathy

Fourth wave of exchanges

A fourth wave of exchanges was launched the 18th April 2011, with a deadline for sending application by the 9th May 2011. 10 eligible applications were received and were evaluated by the IAB between the 12th and 20th May 2010.

[1] SALHI Dounia, HIHOUD Chaima and ADDAOUDI Kaoutar are accepted for a renewal (6 more months).

Nine were admitted for exchanges and the 10th candidate has been rejected as he was applying for only one month exchange to Egypt (too short to do any research).

Fourth wave summary

Student name	Sending institution (supervisor)	Hosting institution (supervisor)	Dates	Gender	Year of thesis	Theme of research
CHAKIR Ibtissam	UAE, Tetouan, Morocco (Errami)	INCI,Strasbourg, France (Vuillez)	Oct 2011-March 2012	F	3d year of Phd	Comparative study of the construction of photoperiodic messages in the circadian clock in a diurnal rodent and nocturnal rodent
KHALIL Radwa	Alexandria and Assiut University (Moftah & Khedr)	Bordeaux, France (Garenne)	Sept 2011-Feb 2012	F	Master	Studying Neuronal and Cognitive Dysfunction in Epileptic Patients using a Combined Experimental-Computational Methodology
TOUATI Hanane	LBPO, USTHB, Algier, Algeria (Ouali Hassenaoui)	INCI,Strasbourg, France (Pévet)	Sept 2011-Feb 2012	F	1st year of Phd	Analyse morpho-physiologique des noyaux suprachiasmatiques chez un rongeur déserticole (Psammomys obesus)
YOUSEFMarwa	Alexandria University (Moftah)	Yeditepe University, Istanbul, Turkey (Kurnaz)	Oct 2011-March 2012	F	Master	Evaluation of Lithium Chloride Treatment on the Rat Brain and Associated Endocrine Glands

SADOUSSI Chaouki	Ibn Tofial, Kenitra, Morocco (Ahami)	Assuit University, Assiut, Egypt (Khedr)	Sept-Nov 2011	M	1st year of Phd	Dyslexia diagnosis by the software labell and exploration of the dyslexic brain by electroencephalography and brain imaging
OULD MOHAMED MAHMOUD Ely Cheikh	UAE, Tetouan, Morocco (Errami)	Yeditepe University, Istanbul, Turkey (Kurnaz)	July-October 2011	M	1st year of Phd	Role of Relaxin3 in the amygdala and his implication in autism

Global evaluation of exchanges

The exchanges that took place during the different waves were related always to the scientific themes of N€uromed. The exact distribution of the exchanges between the different themes can be observed in Figure 1.

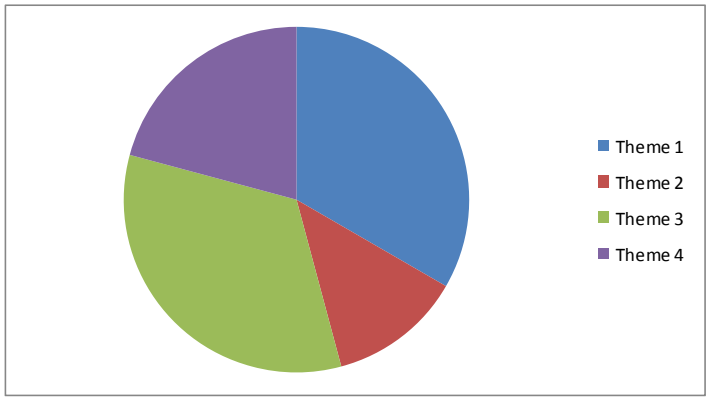

Figure 1. Distribution of exchanges between the different scientific themes of N€uromed

The exchanges are being hosted by universities in France, Spain, Turkey and Egypt. The distribution of exchanges between countries can be observed in Figure 2.

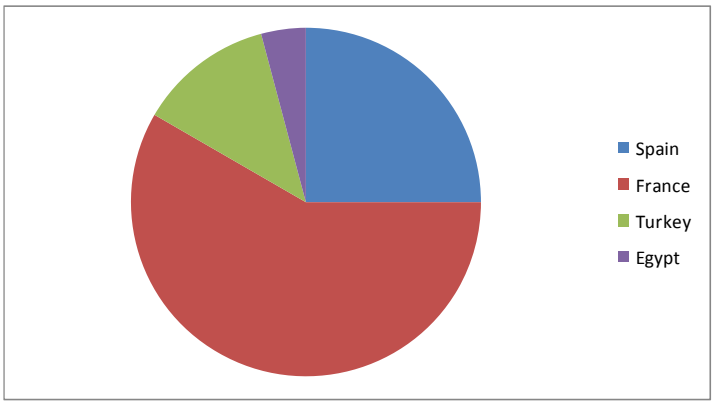

Figure 2. Distribution of exchanges between the different hosting countries

The students who participate in the exchanges come from universities in Morocco, Egypt and Algeria. The exact distribution between countries can be observed in Figure 3.

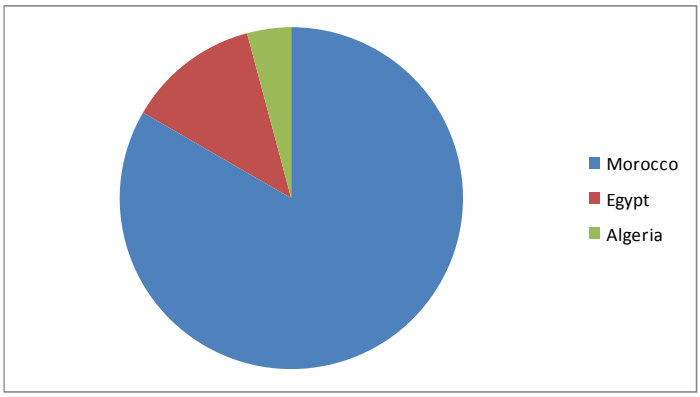

Figure 3. Distribution of exchanges between the different sending countries

Note : these figures give information on the 4 waves of exchanges although the fourth one will start in September 2011.

Improvements in the procedure after the third wave of exchanges

During the IAB meeting which took place on 2nd March 2011, its members proposed several improvements in the evaluation procedure that were approved and were introduced in the fourth call for exchanges. Following these recommendations, we have updated the application forms too.

Exchanges of Post-Doc:

Although whenever we launch a call for Phd, it is also open for Post-doc, no Post doc exchanges have taken place so far.

It is important to highlight that neuroscience is a rather new field in MPC. Therefore, there are not a lot of candidates for such type of exchanges.

Exchanges of researchers

Since the beginning of the project until the end of the first reporting period (M18), 18 exchanges of researchers among N€uromed Consortium have taken place.

The aims were either to initiate collaborations or advance the research with already existing collaborations.

Organization:

At the beginning of each year, we circulate a table asking the researchers to plan their exchanges. Then, throughout the year, the applications are sent on the basis of an open call.

We do not evaluate the applications. However, we make sure there is a balance within the exchanges and we ask for a report to be sent after the exchange.

Summary of exchanges (March 2010- May 2011)

Name of researcher	Name of institution, Country	Name of hosting researcher	Name of hosting institution, Country	Collaboration Project	Date of exchange
Najimi	Moulay Slimane University, Morocco	Trouslard	Université Paul Cézanne, France	Explore and establish new opportunities to continue the ongoing cooperation concerning the food intake control	22-25 March 2010
Moftah	Alexandria University, Egypt	Boussaoud	INCM, France	Link the cellular and molecular levels of neuroscience to the behavioural level. Project through phd student on neuronal plasticity in monkey models of epilepsy (France) and in rodents (Egyptian side).	22-25 March 2010
Chigr	Moulay Slimane University, Morocco	Moftah	Alexandria Univeristy, Egypt	Examination of strategies to apply the effects of several heavy metals and pesticide residues on rat brain	27 April-1st May 2010
Najimi	Moulay Slimane University, Morocco	Moftah	Alexandria Univeristy, Egypt	Explore opportunities to establish cooperative research in the field of neurobiology of stress, by exchanging experiences of the two models of stress used by Moroccan team and the Egyptian team in Cairo University (Pr. Abdel	27 April-1st May 2010

				Tawab)	
Rakha	Canal Suez University, Egypt	Trouslard	Univeristé Paul Cézanne, France	Link between neurophysiology of the cardovascular system and autonomic funtion and cognitive functions	19-23 May 2010
Chigr	Moulay Slimane University, Morocco	Trouslard	Université Paul Cézanne, France	Identification of PK2L1D cells in mouse CNS in relation to food intake	20-28 July 2010
Najimi	Moulay Slimane University, Morocco	Trouslard	Université Paul Cézanne, France	Effect of stress on neurogenesis rate in olfactory bulb	17 - 24 July 2010
Ba M'hamed	University of Cadi Ayyad, Morocco	Boussaoud	INCM, France	Neuronal basis of learning by observation / evaluate the work of Malika Ben El Fakir (Phd student in N€uromed exchange)	4-8 Oct 2010
Khedr	Assiut University, Egypt	Besson	INCM, France	Cognitive functions in Alzheimer's disease	11-16 Oct 2010
Aboussaleh	University Ibn Tofail, Morocco	Moftah	Alexandria Univeristy, Egypt	Animate a conference on neuroregulation alterations in early stage orno deficiency/ next step: plan a protocol study with researchers on neurophysiology (Dr Wessam Mohammed) on a rat model	16-21 Oct 2010
Pévet	Université de Strasbourg, France	Dorbani, Barka	USTHB, Algeria	Identify 2 potential collaborations through the co-supervison of Phd students for 2011	23-26 Oct 2010
Moftah	Alexandria University, Egypt	Kurnaz	Yeditepe University,Turkey	Link the cellular and molecular level of neuroscience, discuss the exchange of Nermeen Nazir	23-26 Oct 2010
Lakhdar Ghazal	Université Mohamed V, Morocco	Benazzouz	Univeristé de Bordeaux, France	Lead neurotoxicity and basal ganglia activity/ finalize a scientific paper concerning the work done by Mariam SABBAR	3-9 Nov 2010

Magoul	LANENC, USMB, Morocco	Anouar	DC2N, Université de Rouen, France	Biological role of Novel neuropeptides in neuroendocrine regulations related to envirnomental stress, feeeding behaviour and thermoregulation/ common publication in progress/ dicuss the co supervision of PhD student (Fatima El Zahra El Yamani)	29 Nov to 8 Dec 2010
Besson	INCM, France	Khedr	Assiut University, Egypt	Design and implement coginitive tests for patients with different types of pathologies by using both behavioural and electrophysiological measures	18-23 Dec 2010
Benazzouz	Université de Bordeaux, France	Lakhdar Ghazal	Mohamed V University, Morocco	Neurotoxocity of heavy metals and the pathophysiology of Parkinson's disease/ Participate to N€uromed local workshop in Rabat/ prepare exchange of Safa Bouabid	16-23 Dec 2010
Anouar	Université de Rouen, France	Magoul	Sidi Mohamed Ben Abdellah University, Morocco	Role of novel neuropeptides and downstream effectors in physiology and pathophysiology	1st to 6th February 2011
Agoub	Hassan II University	Boussaoud	INCM, France	Check the outcome of ongoing collaboration “learning by observation in schizophrenic patients”. The data acquired in Casablanca using a equipment loaned by the INCM in order to test the performance of a group of schizophrenic patients in comparison to a control group in two conditions (trial and error AND Learning by observation)	13-16 th February 2011

The figure below shows the geographic distribution of the exchanges of permanent staff: 61.1 % from South to North of the Mediterranean countries, 22.2 % from North to South and 16.6 % South to South exchanges.

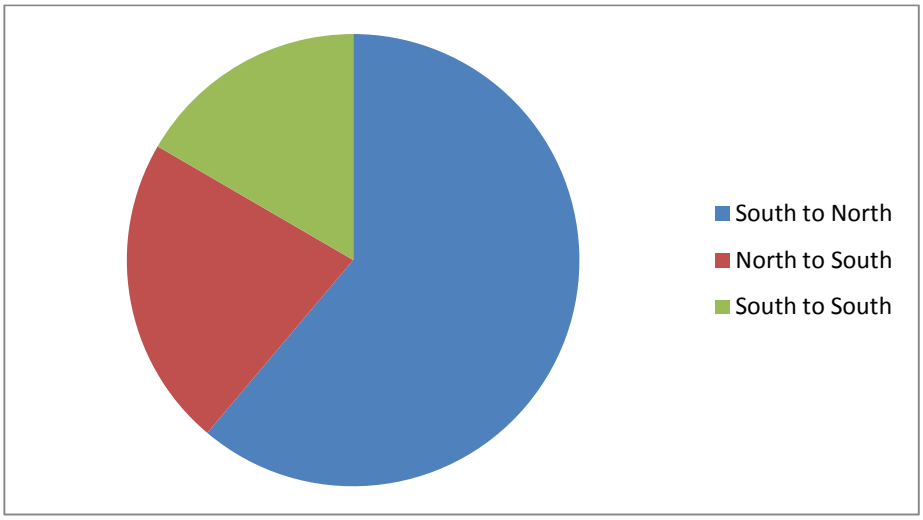

Figure 4. Geographic distribution of the exchanges of permanent staff (M0 – M18)

Training:

As part of the training activities, we have launched a number of calls of "training grants" for students of Neuromed labs:

- We provided 10 "Travel grants" to PhD students and young investigators from Algeria, Morocco and Egypt to attend the 10th Meeting of the French Society of Neuroscience to hold in Marseille from 24th to 27th May 2011.
- Training grants to PhD students and Post-doc from Algeria, Egypt, Morocco and Turkey to attend the European Synapse Summer School that will take place between the 4th to 23rd September 2011 in Bordeaux, France.
- Training grants to PhD students from Algeria, Egypt and Morocco to attend the Electrophysiology School of Strasbourg that will take place between the 10th to 15th October 2011 in Strasbourg, France.

Summary:

So far, within this work package, N€uromed gave the opportunity for:

- 15 Phd student from MPC to spend up to 12 months (6 months that can be renewable once) in labs so that they learn new techniques, advance their research and Phd project
- 18 researchers' visits either to initiate a new scientific collaboration or to follow up on existing ones
- 14 students and young researchers to attend international meetings in neurosciences or to take part in summer school and training courses through travel and/or training grants.