



CHALLENGING THE NEED FOR EXCELLENCE

# The 5th WFNS Rabat Reference Center- Mohammed V University Souissi Conference for African Neurosurgeons

Rabat, November 8-11, 2012



Organized in collaboration with:  
The Moroccan Society of Neurosurgery  
The African Federation of Neurosurgical Societies  
The UPR of Neurosurgery

Celebrating the  
**10th**  
Anniversary of  
the WFNS  
Rabat Reference  
Center  
2002 - 2012

- Nov. 8: Practical workshop on DBS for Parkinson Disease.
- Nov. 9: African symposium on Radiosurgery and Functional Neurosurgery.
- Nov. 10-11: Clinical Course on the following topics: Low-grade gliomas, Cerebrovascular malformations, Head and spinal trauma, Skull base tumors, Central Nervous System malformations, How I do it (in the context of African Countries)

Course Director : Abdeslam El Khamlichi, MD  
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# Welcome message

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Dear lecturers and trainees, dear friends,

It is my great pleasure to invite you to attend the 5<sup>th</sup> WFNS Rabat Reference Center-Mohammed V University Souissi Course for African Neurosurgeons to be held in Rabat on Nov. 9-11, 2012.

During this 5<sup>th</sup> course, we will celebrate the 10<sup>th</sup> Anniversary of the “WFNS Rabat Reference Center” which started with the first trainee granted by the WFNS Foundation on March 1<sup>st</sup>, 2002. The Organizing Committee and myself would like to gather up a maximum number of African participants, with the WFNS representatives, in order to work together towards the support of training and development of neurosurgery in Africa.

This Fifth Course is scheduled over 4 days. Nov. 8<sup>th</sup>, a practical workshop on Parkinson disease. The learning objective of the workshop is to allow participants to understand the target selection and application modalities of DBS and lesioning techniques, in order to achieve the best possible results. Nov. 9<sup>th</sup>, an African Symposium on Radiosurgery and Functional Neurosurgery (FNS). The goal of this symposium is to gather up all African neurosurgeons practicing and/or who are interested in the practice of Functional Neurosurgery and Radiosurgery. November 10<sup>th</sup>-11<sup>th</sup>, are dedicated to a clinical neurosurgery course dealing with various topics.

Africa has the highest incidence of pathologies in need for functional neurosurgery (Parkinson and movement disorders, pain, spasticity, epilepsy, ...etc.), and many neurosurgical centers in Africa are developing FNS practice with very good results. We dedicate two days to FNS and radiosurgery to allow African neurosurgeons to exchange their preliminary experience in this field, and to learn from the invited speakers the guidelines in order to develop this part of neurosurgery, taking into consideration the local conditions.

I would like to thank all lecturers who have accepted to participate in this course, and to dedicate their valued time to the improvement of neurosurgery in Africa.

I would also like to express my thanks to Moroccan authorities, to Mohammed V University Souissi, to the Moroccan Society of Neurosurgery, and the African Federation of Neurosurgical Societies, for their collaboration and support.

I will be very happy to welcome all of you. The Organizing Committee and myself will do our best to make this course fruitful and your stay in Rabat memorable.

Professor Abdeslam El Khamlichi  
Director of the Course

# OFFICIALS AND EXECUTIVE COMMITTEE

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## Director of the Course

Professor Abdeslam El Khamlichi

## Organizing Committee

- Professor Abdessamad El Azhari  
(President of the African Federation of Neurosurgical Societies,  
Director UPR\* of Neurosurgery, Casablanca)
- Professor Youssef Bouzoubaa  
(President of the Moroccan Society of Neurosurgery, Casablanca)
- Professor Fouad Amrani  
(President of the Moroccan Association of Private Neurosurgeons, Casablanca)
- Professor Said Hilmani  
(Secretary of the Moroccan Society of Neurosurgery, Casablanca)
- Professor Mahmood Qureshi  
(Secretary of the African Federation of Neurosurgical Societies, Nairobi)
- Professor Said Derraz  
(Treasurer of the Moroccan Society of Neurosurgery, Rabat)
- Professor Abdessamad El Ouahabi  
(Director UPR\* of Neurosurgery, Rabat)
- Professor Mohamed El Faiz Chaoui  
(Director UPR\* of Neurosurgery, Fez)
- Professor Said Ait Ben Ali  
(Director UPR\* of Neurosurgery, Marrakech)
- Professor Najia El Abbadi  
(Chair of Neurosurgery Department, Cheikh Zeid Hospital, Rabat)
  
- **Local Organizing Committee**
  - Professor Yasser Arkha
  - Doctor Adyl Melhaoui
  - Doctor Fahd Derkaoui Hassani
  - Doctor Justin Onen
  - Doctor Ahokossi Alidegnon Semevo
  - Doctor Claire Karekezi
  
- **Secretariat**
  - Mr. Khalid Zerqali

*\*UPR : Unité de Pédagogie et de Recherche (Education and Research Unit in Neurosurgery)*

# Invited Lecturers

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- Professor Benaissa Abdennebi (Algiers, Algeria)*  
*Professor Nii B. Andrews (Tema, Ghana)*  
*Professor Miguel Arraez (Malaga, Spain)*  
*Professor Hildo Azevedo (Recife, Brazil)*  
*Professor Armando Basso (Buenos Aires, Argentina)*  
*Professor Abdelhamid Benazzouz (Bordeaux, France)*  
*Professor Tahar Benbouzid (Algiers, Algeria)*  
*Professor Helmut Bertalanffy (Hannover, Germany)*  
*Professor Peter Black (Boston, USA)*  
*Professor Serge Blond (Lille, France)*  
*Professor Kheyreddine Bouyoucef (Algiers, Algeria)*  
*Professor Mikhail Chernov (Tokyo, Japan)*  
*Professor Maurice Choux (Marseille, France)*  
*Professor Mohamed El Fiki (Alexandria, Egypt)*  
*Professor Adel El Hakim (Cairo, Egypt)*  
*Professor Anthony Figaji (Cape Town, South Africa)*  
*Professor Nejib Hattab (Monastir, Tunisia)*  
*Professor Hafedh Jemel (Tunis, Tunisia)*  
*Professor Christer Lindquist (London, UK)*  
*Professor Samuel Ohaegbulam (Enugu, Nigeria)*  
*Professor Richard Perrin (Toronto, Canada)*  
*Professor Mahmood Qureshi (Nairobi, Kenya)*  
*Professor Wael Reda (Cairo, Egypt)*  
*Professor José-Gerardo Martin-Rodriguez (Madrid, Spain)*  
*Professor François-Xavier Roux (Paris, France)*  
*Professor Amir Samii (Hannover, Germany)*  
*Professor Madjid Samii (Hannover, Germany)*  
*Professeur Bello Bala Shehu (Abuja, Nigeria)*  
*Professor Temitayo Shokunbi (Ibadan, Nigeria)*  
*Professor Abderrahmane Sidi Said (Algiers, Algeria)*

# PRELIMINARY PROGRAM

## WORKSHOP

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**Thursday, NOVEMBER 8<sup>th</sup>, 2012**  
**DEEP BRAIN STIMULATION WORKSHOP**

**Venue: National Center for Rehabilitation and Neurosciences**  
**Hôpital des Spécialités, Rabat**

### **Learning Objectives:**

- Indications and patient selection for DBS
- Practical strategy and modalities applied to improve results and avoid complications

### *Theory session*

1. Welcome and introduction
2. Patient selection for movement disorder surgery
3. Target selection in movement disorder surgery
4. Programming strategies for DBS
5. Managing the DBS patient in the long term
6. Advanced programming options available on the new generation DBS devices

### *Practical session*

7. Clinical case discussion

## SYMPOSIUM

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**Friday, November 9<sup>th</sup>, 2012**

**FIRST AFRICAN SYMPOSIUM ON FUNCTIONAL NEUROSURGERY AND RADIOSURGERY**

**Venue: Hôtel Tour Hassan, Rabat**

8h-16h

Epilepsy

Parkinson Disease and Movement Disorders

Radiosurgery

Pain and spasticity

16h00-17h00:

**Visit of the Gamma Knife Unit at the National Center for Rehabilitation and Neurosciences**

## CLINICAL COURSE

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**Saturday, November 10<sup>th</sup>, and Sunday, November 11<sup>th</sup>, 2012**

**Venue: Hôtel Tour Hassan, Rabat**

Low-grade gliomas, Cerebrovascular malformations, Head and spinal trauma, Skull base tumors,  
Central nervous system malformations, How I do it (in the context of African countries)



## REGISTRATION FEES

	Workshop on DBS Nov. 8, 2012		African Symposium on FNS and Radiosurgery, Clinical Course Nov. 9-11, 2012	
	Early registration before October 10, 2012	Late registration after October 10, 2012	Early registration before October 10, 2012	Late registration after October 10, 2012
Senior neurosurgeons	60 Euros	80 Euros	200 Euros	250 Euros
Residents	50 Euros	65 Euros	150 Euros	200 Euros

## ACCOMMODATION

### Course Venue (Downtown Rabat):

Hotel Tour Hassan (5\*)

26, rue Chellah, Rabat

Phone : +212 537 23 90 00 / 23 90 62

Fax : +212 537 72 54 08 / 73 18 66

Single room : 1.939,60 Moroccan Dirhams per night (190 Euros), bed and breakfast

Double room : 2.179,20 Moroccan Dirhams per night (220 Euros), bed and breakfast

### Other hotels and motels:

Rabat Yasmine Hotel (3\*A)

Angle Zankat Marinyine et Makka, Rabat

Phone : +212 537 72 20 18/90/76

Fax : +212 537 72 21 00

5 minutes walking distance from course venue

Single room : 412 Moroccan Dirhams per night (40 Euros), bed and breakfast

Double room : 570 Moroccan Dirhams per night (57 Euros), bed and breakfast

Hotel Rihab (4\*)

Angle Av. Moulay Ismail & Rue El Morabidine Hassan, Rabat

Phone : +212 537 70 62 70

Fax : +212 537 72 36 22

10 minutes walking distance from course venue

Single room : 750 Moroccan Dirhams per night (75 Euros), bed and breakfast

Double room : 920 Moroccan Dirhams per night (92 Euros), bed and breakfast

Association Culturelle et Sportive de l'Agriculture - Motel

Close to Hopital des Specialites

Avenue Mohammed Bel Arbi El Alaoui, Rabat

Phone : +212 537 67 38 96

Fax : +212 537 68 00 16

1 hour walking distance from course venue

15 minutes walking distance from tramway-streetcar station

Single room : 200 Moroccan Dirhams per night (20 Euros), **breakfast not included**

Double room : 300 Moroccan Dirhams per night (30 Euros), **breakfast not included**

## MODE OF PAYMENT

### Registration fees payable by bank transfer to :

FONDATION HASSAN II POUR LA PREVENTION ET LA LUTTE CONTRE LES

MALADIES DU SYSTEME NERVEUX

BANQUE MAROCAINE DU COMMERCE EXTERIEUR

AGENCE RABAT ALEXANDRIE

5 RUE D'ALEXANDRIE, RABAT, MOROCCO

PHONE: +212 5 37 21 87 70

ACCOUNT NUMBER: 011 810 0000 02 200 00 10989 02

SWIFT CODE: BMCEMAMC

A copy of the bank transfer document should be faxed to the Organizing Secretariat.

## SECRETARIAT

### Organizing Secretariat :

DEPARTMENT OF NEUROSURGERY

HOPITAL DES SPECIALITES,

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# PRESENTATION OF THE WFNS RABAT REFERENCE CENTER FOR TRAINING OF AFRICAN NEUROSURGEONS

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The idea of creating a training center for African neurosurgeons came out of the willingness of the WFNS, under the presidency of Professor Madjid Samii, to contribute to the development of neurosurgery in Africa. Before this idea emerged, a report was written by a team of African neurosurgeons headed by Professor A. El Khamlichi based on a survey conducted all over the African continent. The report was presented during the WFNS Administrative Council meeting in Geneva in 1999. This report referred to a severe limitation in the number of neurosurgeons, especially in Sub-Saharan Africa where the rate was approximately 1 neurosurgeon to 10 million inhabitants.

The choice of this center was to abide by the scientific criteria applied to any training center, and should meet two concerns in the short range. The first concern was to provide a good training with limited financial resources, and the second one was to train young neurosurgeons in conditions that should be as close as possible to the ones available in their home countries. In the long range, these trained neurosurgeons will be able to train other young neurosurgeons in order to allow for the progress and development of neurosurgery in their respective countries.

The WFNS chose to set up the center in Rabat, Morocco, because this country had made a great progress in the development of neurosurgery. This project was supported by His Majesty King Mohammed VI with the aim of enhancing South-South co-operation. The first trainee, Doctor Didier Mudjir Balanda (from the Democratic Republic of Congo), was granted a scholarship by the WFNS Foundation. He started his basic training at the WFNS Rabat Reference Center on March 1<sup>st</sup>, 2002.

In 2005, during the 13<sup>th</sup> World Congress of Neurological Surgery in Marrakech, a co-operation agreement was signed between Rabat Mohammed V University, represented by Professor Najia Hajjaj-Hassouni (Dean of Rabat School of Medicine and Pharmacy), and Professor Abdeslam El Khamlichi (Director of the WFNS Rabat Reference Center for training of African neurosurgeons), and the WFNS and its Foundation (WFNS Foundation for Training Young Neurosurgeons from Developing Countries), represented by Professor Edward Laws (WFNS President) and Professor Madjid Samii (WFNS Foundation President). Mohammed V University committed itself as an institution to train the young African neurosurgeons in the same conditions as Moroccan residents, whereas the WFNS Foundation was bound to grant fellowships and to support continuing education for these residents.

African neurosurgeons are selected either after undergoing an examination, or through file examination. For those who have undergone an examination, they will receive a national diploma of specialization after their five-year training, and the others will receive a specialization certificate. All these neurosurgeons have to take yearly examinations, and are allocated the same tasks as Moroccan residents, meaning patient management at the department and at the emergency unit, and also have to perform surgery as required by their training program. They also need to present scientific papers. The resident who has

completed his/her five-year training will have to join his/her home country where he/she has to do his/her best to help patients and train other neurosurgeons.

Between 2002 and 2012 (10 years), Rabat Reference Center for Training of African Neurosurgeons has enabled the training of nineteen young African neurosurgeons, under the guidance of Professor Abdeslam El Khamlichi and his team. Seven of these trainees have already finished their training and are back to their countries (Five of these neurosurgeons have undergone a complete five-year training, and two have undergone short-term trainings extending from six months to one year) . Thirteen others are still under training. All of them were accepted for a complete five-year training. All these trainees come from sub-Saharan African countries where the number of neurosurgeons does not exceed 1-2 neurosurgeons to 5-10 million inhabitants. All these trainees benefit from a scholarship granted by the WFNS Foundation or the Moroccan Agency for International Cooperation, or various African universities, or international institutions (Tables 1 and 2).

**Table 1: African trainees who have graduated from WFNS Rabat Reference Center (March 2002-December 2011):**

<b>Name of trainee</b>	<b>Country + population + number of neurosurgeons in the country</b>	<b>Date when training started</b>	<b>Date when training ended</b>	<b>Duration of training</b>	<b>Scholarship</b>
Doctor Didier Mudjir	Democratic Republic of Congo, 60000000 inhabitants, 1 neurosurgeon in the country	2002	2007	5 years	WFNS Foundation scholarship
Doctor Nasiru Jinjiri Ismail	Nigeria, 120000000 inhabitants, 14 neurosurgeons in the country	2002	2004	3 years	Philips Medical Systems, Morocco
Doctor Youssouf Sogoba	Mali, 13700000 inhabitants, 0 neurosurgeon in the country	2004	2009	5 years	WFNS Foundation scholarship
Doctor Abdullahi Onimisi Jimoh	Nigeria, 120000000 inhabitants, 14 neurosurgeons in the country	April 2005	September 2005	6 months	His University
Doctor Kisito Quenum	Benin, 8000000 inhabitants, 3 neurosurgeons in the country	2005	2010	5 years	WFNS Foundation scholarship
Doctor Ismail Hassan	Nigeria, 120000000 inhabitants, 14 neurosurgeons in the country	January 1 <sup>st</sup> , 2008	January 1 <sup>st</sup> , 2009	1 year	His University



Name of trainee	Country + population + number of neurosurgeons in the country	Date when training started	Date when training ended	Duration of training	Scholarship
Doctor Ali Lasseini	Niger, 12000000 inhabitants, 1 neurosurgeon in the country	October 10, 2009	October 2011	2 years	Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria
Doctor Oumar Coulibaly	Mali, 13700000 inhabitants, 1 neurosurgeon in the country	March 20, 2006	March 20, 2011	5 years	WFNS Foundation scholarship, Belgian Technical Co-operation scholarship

**Table 2: African trainees currently in the WFNS Rabat Reference Center (December 2011):**

Name of trainee	Country + population + number of neurosurgeons in the country	Scholarship	Date when training started	Expected duration of training	Year of training
Doctor Seylan Diawara	Guinea Conakry, 10000000 inhabitants, 2 neurosurgeons in the country	WFNS Foundation scholarship (since April 2007)	April 1, 2007	5 years	5th year
Doctor Hugues Brieux Ekouele Mbaki	Congo Brazzaville, 3700000 inhabitants, 2 neurosurgeons in the country	His University	June 9, 2008	5 years	4th year
Doctor Justin Onen	Uganda, 23000000 inhabitants, 5 neurosurgeons	WFNS Foundation scholarship since January 1st, 2010	June 1, 2008	5 years	4th year
Doctor Achille Komlan Agbeko Doleagbenou	Togo, 6000000 inhabitants, 1 neurosurgeon in the country	WFNS Foundation scholarship since January 1st, 2010	January 15, 2009	5 years	3rd year
Doctor Jeff Ntalaja Mukengeshay	Democratic Republic of Congo, 60000000 inhabitants, 2 neurosurgeons in the country	Moroccan Agency for International Co-operation MAIC	January 15, 2009	5 years	3rd year
Doctor Sinclair Brice Kinata-Bambino	Congo Brazzaville, 3700000 inhabitants, 2 neurosurgeons in the country	French-Speaking Society of Neurosurgery	October 1, 2009	5 years	3rd year

<b>Name of trainee</b>	<b>Country + population + number of neurosurgeons in the country</b>	<b>Scholarship</b>	<b>Date when training started</b>	<b>Expected duration of training</b>	<b>Year of training</b>
Doctor Regis Olory-Togbe	Benin, 8000000 inhabitants, 3 neurosurgeons in the country	University Hospital Center of Rabat	February 10, 2009	5 years	3rd year
Doctor Habibou M. Laminou	Niger, 12000000 inhabitants, 1 neurosurgeon in the country	Moroccan Agency for International Co-operation MAIC	July 20, 2009	5 years	3rd year
Doctor Ibrahim Dao	Burkina Faso, 15000000 inhabitants, 1 neurosurgeon in the country	Ministry of Defence of his country	July 15, 2009	5 years	3rd year
Doctor Ahokossi Alidegnon Semevo	Benin, 8000000 inhabitants, 3 neurosurgeons in the country	Belgian Co-operation	December 30, 2010	5 years	2nd year
Doctor Claire Karekezi	Republic of Rwanda, 10000000 inhabitants, 2 neurosurgeons in the country	Ministry of Health of her country	June 1st, 2011	5 years	2nd year

Today, the WFNS keeps on doing its best to support Rabat Reference Center and education in Africa. The current WFNS president, Professor Peter Black, has just launched last year another way to reinforce education and training in Africa by nominating Professor Madjid Samii as WFNS Ambassador to Africa. Three months after his nomination, Professor Madjid Samii proposed a new training program for Africa, "Africa 100". The purpose of this program is to allow 100 young African doctors to start their basic training in neurosurgery by January 2013.

There is no doubt that 10 years of efforts developed by the WFNS Rabat Reference Center will serve as a model in implementing the "Africa 100" program with a creation of other "WFNS Reference centers" for basic training in Africa and maybe outside Africa.