



# COUNCIL'S NEWSLETTER

Published by The High Council of Moroccan American Scholars and Academics—HC-MASA

Volume 3, Issue 4,  
April 2016

## The Council Elected Its New Board of Directors

The High Council of Moroccan American Scholars and Academics elected its new board of Directors among prominent American-Moroccan and other Moroccan scientists across the globe to serve a two year term (2016-2018). The Board of Directors is composed of the following individuals:

- Dr. Khalid Meksem, Professor, Southern Illinois University, USA (President)
- Dr. My Abdelmajid Kassem, Professor & Dept. Chair, Fayetteville State University, USA (VP-USA and Treasurer)
- Dr. Saadia Bihmidine, Lecturer, University of Texas at Arlington, USA (Secretary)
- Dr. Abdelhafid Bendahmane, Research Director, IPS-INRA, France (VP-Europe)
- Dr. Abdelhamid El Mousadik, Professor, University Ibn Zohr, Morocco (VP-MENA and Africa)
- Dr. Mohamed Boutjdir, Professor, SUNY Downstate Medical Center, USA (Member at Large)
- Dr. Abdeslem El Idrissi, Professor, CUNY, USA (Member at Large)

*"The High Council of Moroccan American Scholars and Academics—HC-MASA is a platform that allow us to work for the greater good of science and education in the US, Morocco and elsewhere..."*

- Khalid Meksem



Khalid Meksem  
President



Abdelmajid Kassem  
Vice-President-USA



Abdelhafid Bendahmane  
Vice-President-Europe



Abdelhamid El Mousadik  
Vice-President-MENA



Saadia Bihmidine  
Secretary



Mohammed Boutjdir  
Member at Large



Abdeslem El Idrissi  
Member at Large

## In This Issue

- Council's New Board of Directors
- Moroccan Scientists at the Plant & Animal Genome Conference
- Articles Published By Council Members
- A Prominent Moroccan Scientist



Town and Country Resort and Convention Center, San Diego, CA, USA

## American-Moroccan and European-Moroccan Plant Scientists Thrive at the International Plant & Animal Genome Conference XXIV in San Diego, CA

Eight American-Moroccan and European-Moroccan Plant Scientists were present at “The International Plant & Animal Genome Conference XXIV” that was held January 9–13, 2016 in San Diego, CA. These were:

- Dr. Khalid Meksem, Professor, Southern Illinois University, Carbondale, IL, USA
- Dr. Abdelhafid Bendahmane, Vice-Director, URGV, INRA, France
- Dr. Abdelmajid Kassem, Professor and Department Chair, Fayetteville State University, Fayetteville, NC, USA
- Dr. Adnane Boualem, URGV, INRA, France
- Dr. Faouzi Bekkaoui, an Interim Director, Canadian Research Council, Canada
- Dr. Amine Abbadi of Norddeutsche Pflanzen - zucht, Hohenlieth, Germany
- Dr. Mohammed Bendahmane, Ecole Normale Supérieure, Lyon, France
- Dr. Naoufal Lakhssassi, Postdoctoral Fellow, Southern Illinois University, Carbondale, IL, USA

These scientists organized workshops and presented their research findings in oral and poster formats as follows:

### I. WORKSHOPS:

#### ***a. Workshop: Genomics of Plant Development***

Organizer: Dr. Khalid Meksem  
 Date: Sunday, January 10, 2016  
 Time: 4:00 PM-6:10 PM



PAG XXIV, January 9-13, 2016

4:00 PM	W445	<b><i>Parasitic Plants Signal Network Analysis.</i></b> Claude dePamphilis, Penn State University.
4:25 PM	W446	<b><i>A Maize Kernel Mutant that Lacks a Putative Function in Cell Division.</i></b> Nelson Garcia, Waksman Institute of Microbiology, Rutgers University; Joachim Messing, Rutgers University.
4:50 PM	W447	<b><i>Gene Networks in Plant Biology: Approaches in Reconstruction and Analysis.</i></b> Yupeng Li, University of Georgia; Stephanie A. Pearl, University of Georgia; Scott A. Jackson, University of Georgia
5:15 PM	W448	<b><i>Rose Genomics: Insights into Flower Development and Function.</i></b> Mohammed Bendahmane, Ecole Normale Supérieure, France
5:40 PM	W449	<b><i>Genetic Diversity within the Vitamin E Biosynthetic Pathway of Sunflower.</i></b> Linchay Janine Daniels, Agricultural research council, Biotechnology Platform

***b. Workshop: Teaching Genetics, Genomics, Biotechnology, and Bioinformatics***

Organizer: Abdelmajid Kassem, Fayetteville State University, NC, USA

Date: Saturday, January 9, 2016

Time: 4:00 PM-6:10 PM

Room: Esquire - Meeting House

4:00 PM	W935	<b><i>Teaching Bioinformatics Through Developing Case Studies: Elementary School Through College.</i></b> Joann Mudge, National Center for Genome Resources (NCGR).
4:20 PM	W936	<b><i>Bioinformatics Tutorials leveraging the Bio-Extract Server</i></b> Carol Lushbough, University of South Dakota
4:40 PM	W937	<b><i>Modified Moore Method for an Undergraduate Bioinformatics Survey Course.</i></b> John Hsieh, Iowa State University.
5:00 PM	W938	<b><i>Recognizing Mutants Among Us: Helping Students Understand the Connections Between Genotype and Phenotype.</i></b> Jelena Brkljacic, The Arabidopsis Biological Resource Center, Center for Applied Sciences, The Ohio State University.
5:20 PM	W939	<b><i>Connecting Genotype to Phenotype in 7-12 Classrooms with iTAG Barley.</i></b> Roger Wise, Corn Insects and Crop Genetics Research, USDA-Agricultural Research Service, Iowa State University.
5:40 PM	W940	<b><i>Teaching Bioinformatics Data Analysis Using Cloud Computing Technology.</i></b> Vivek Krishnakumar, J. Craig Venter Institute

### c. Workshop: Mutation Screening

Organizer: Abdelhafid Bendahmane, URGV, INRA, France

Date: Saturday, January 9, 2016

Time: 10:30 AM-12:40 PM

Room: Golden West

10:30 AM	W596	<b>DNA-Free Genome Editing in Plants with Preassembled CRISPR-Cas9 Ribonucleoproteins.</b> Sunghwa Choe, Seoul National University.
10:50 AM	W597	<b>CRISPR/Cas9-Mediated Viral Interference in Plants.</b> Magdy Mahfouz, Biological and Environmental Sciences and Engineering Division.
11:10 AM	W598	<b>Analysis of an EMS Mutagenized Population of Wheat by Exome Capture Identifies Widespread Deletions.</b> Andy L Phillips, Rothamsted Research.
11:30 AM	W599	<b>The Sorghum brown midrib (bmr) Mutants: A Forward Genetics Approach to Lignin.</b> Scott Sattler, USDA-ARS Grain, Forage and Bioenergy Unit.
11:50 AM	W600	<b>Designing Plants with Novel Traits Using Forward and Reverse Genetics - the BenchBio Company Perspective.</b> Manash Chatterjee, NUIG, Ireland & BenchBio Pvt Ltd.
12:10 PM	W601	<b>Identification of Rare Alleles in Soybean using TILLING by Sequencing.</b> Karen Hudson, USDA-ARS; Rima Thapa, Purdue University; Katy Martin Rainey, Purdue University.
12:30 PM	W602	<b>Tilling by Sequencing for Genome-Wide Mutation Discovery and Functional Genomics in Camelina sativa.</b> Sateesh Kagale, National Research Council Canada.

## II. ORAL PRESENTATIONS:

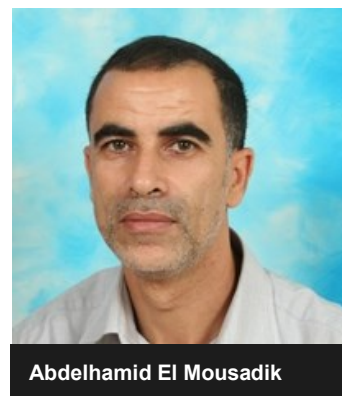
The following scientists gave oral presentations:

The Rose Genome Sequencing Initiative, Prospects and Perspectives. **Mohammed Bendahmane**, Ecole Normale Supérieure, Lyon, France.

### Prof. Abdelhamid El Mousadik Named Vice President for Research at Ibn Zohr University

Congratulations to Prof. Abdelhamid El Mousadik who was named Vice-President for Research at Ibn Zohr University. Prof. El Mousadik was also elected Vice-President for MENA region and Africa of the High Council of Moroccan American Scholars and Academics (HC-MASA). Prof. El Mousadik published along with his colleagues and undergraduate and graduate students over 75 high quality peer-reviewed articles according to Research Gate ([www.researchgate.com](http://www.researchgate.com)).

We wish him all the best in his new role as Vice President for Research at IZU.



Soybean Mutations Mapping: Applications in Functional gene analysis and Soybean Improvement. **Naoufal Lakhssassi**, Shim-ing Liu, Zhou, and Khalid Meksem. Southern Illinois University, Carbondale, IL, USA.

Rose Genomics: Insights into Flower Development and Function. **Mohammed Bendahmane**, Ecole Normale Supérieure, Lyon, France.

A Cucurbit Androecy Gene Reveals How Unisexual Flowers Develop and Dioecy Emerges. **Adnane Boualem**, INRA-IPS2

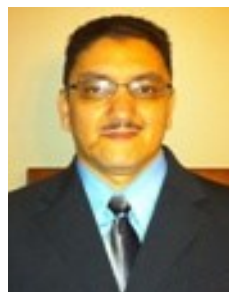
### III. POSTER PRESENTATIONS:

Akond M, S Liu, SK Kantartzi, K Meksem, N Ballaloui, DA Lightfoot, JA Anderson, D Wang, J Yuan, and **MA Kassem**. A SNP Genetic Linkage Map Based on the 'Hamilton' by 'Spencer' Recombinant Inbred Line Population Identified QTL for Seed Isoflavone Contents in Soybean (P0975). Plant and Animal Genome Conference XXIV, January 9–13, 2016, San Diego, CA, USA.

Ballaloui N, L Khandaker, M Akond, SK Kantartzi, K Meksem, DA Lightfoot, A Mengistu, and **MA Kassem**. Genetic Mapping of QTL Associated with Seed Macronutrients Accumulation in 'MD 96-5722' by 'Spencer' Recombinant Inbred Lines of Soybean (P0978). Plant and Animal Ge-



Khalid Meksem



Abdelmajid Kassem



Abdehafid Bendahmane



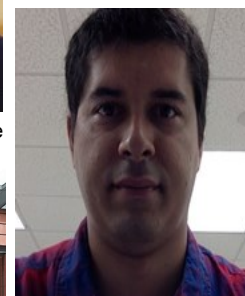
Adnane Boualem



Faouzi Bekkaoui



Mohamed Bendahmane



Naoufal Lakhssassi

## Council's Members Published Articles (2015–Present)

- Abdelkhalek R, Ahmimech J, Mouzariae Y, **El Idrissi A**, El Hamichi S, Messaoudi R, Bargach T, Reda K, Oubaaz A. [Case of a bilateral MALT lymphoma of the lacrimal sac treated only medically]. *J Fr Ophtalmol*. 2015 Dec;38(10):e237. doi: 10.1016/j.jfo.2014.11.026.
- Akond A, S Liu, SK Kantartzi, **K Meksem**, N Bellaloui, DA Lightfoot, J Yuan, D Wang, J Anderson, DA Lightfoot, and **MA Kassem**. A SNP Genetic Linkage Map Based on the 'Hamilton' by 'Spencer' Recombinant Inbred Line (RIL) Population of Soybean [*Glycine max* (L.) Merr.] Identified QTL for Seed Isoflavone Contents. *Plant Breeding* 134: 580–588, 2015. doi:10.1111/pbr.12298.
- Akond M, SLiu, SK Kantartzi, **K Meksem**, N Bellaloui, DA Lightfoot, and **MA Kassem**. Quantitative Trait Loci Underlying Seed Sugars Contents in 'MD 96-5722' by 'Spencer' Recombinant Inbred Line Population of Soybean. *Food and Nutrition Sciences* 6: 964–973, 2015. doi: 10.4236/fns.2015.611100.
- Anderson J, M Akond, J. Bond, **MA Kassem**, **K Meksem**, and SK Kantartzi. Quantitative Trait Loci Underlying Resistance to Sudden Death Syndrome (SDS) in MD96-5277 by 'Spencer' Recombinant Inbred Line (RIL) Population of Soybean. *3 Biotech* 5: 203–210, 2015. doi: 10.1007/s13205-014-0211-3.
- Bekal S, Domier LL, Gonfa B, Lakhssassi N, **Meksem K**, Lambert KN. A SNARE-Like Protein and Biotin Are Implicated in Soybean Cyst Nematode Virulence. *PLoS One*. 2015 Dec 29;10(12):e0145601. doi: 10.1371/journal.pone.0145601.
- Bellaloui N, L Khandaker, M Akond, SK Kantartzi, **K Meksem**, A Mengistu, and **MA Kassem**. Identification of QTLs Underlying Seed Macronutrients Accumulation in 'MD96-5722' by 'Spencer' Recombinant Inbred Lines of Soybean. *Atlas Journal of Biology* 3 (2): 224–235, 2015.
- Bellaloui N, L Khandaker, M Akond, SK Kantartzi, **K Meksem**, A Mengistu, DA Lightfoot, and **MA Kassem**. Identification of QTL Underlying Seed Micronutrients Accumulation in 'MD 96-5722' by 'Spencer' Recombinant Inbred Lines of Soybean. *Atlas Journal of Plant Biology*, 1 (3): 39–49, 2015.
- Bihmidine S**, Baker RF, Hoffner C, Braun DM. Sucrose accumulation in sweet sorghum stems occurs by apo-

## Council's Members Published Articles (2015–Present)

- plasmic phloem unloading and does not involve differential Sucrose transporter expression. *BMC Plant Biol.* 2015 Jul 30;15:186. doi: 10.1186/s12870-015-0572-8.
- Bihmidine S**, Julius BT, Dweikat I, Braun DM. Tonoplast Sugar Transporters (SbTSTs) putatively control sucrose accumulation in sweet sorghum stems. *Plant Signal Behav.* 2016 Jan 2; 11(1):e1117721. doi: 10.1080/15592324.2015.1117721.
- Chen Z, Zhu S, Hong J, **Soutto M**, Peng D, Belkhiri A, Xu Z, El-Rifai W. Gastric tumour-derived ANGPT2 regulation by DARPP-32 promotes angiogenesis. *Gut.* 2015 Mar 16. pii: gutjnl-2014-308416. doi: 10.1136/gutjnl-2014-308416.
- Di J, Cohen LS, Corbo CP, Phillips GR, **El Idrissi A**, Alonso AD. Abnormal tau induces cognitive impairment through two different mechanisms: synaptic dysfunction and neuronal loss. *Sci Rep.* 2016 Feb 18; 6: 20833. doi: 10.1038/srep20833.
- El Asbahani A, Miladi K, Badri W, Sala M, Aït Addi EH, Casabianca H, **El Mousadik A**, Hartmann D, Jilale A, Renaud FN, Elaissari A. Essential oils: from extraction to encapsulation. *Int J Pharm.* 2015, 483(1-2): 220-43. doi: 10.1016/j.ijpharm.2014.12.069.
- El-Sherif N, **Boutjdir M**. Role of pharmacotherapy in cardiac ion channelopathies. *Pharmacol Ther.* 2015 Nov; 155:132-42. doi: 10.1016/j.pharmthera.2015.09.002.
- Khandaker L, M Akond, S Liu, SK Kantartzi, **K Meksem**, N Bellaloui, DA Lightfoot and **MA Kassem**. Mapping of QTL Associated with Seed Amino Acids Content in 'MD 96-5722' by 'Spencer' RIL Population of Soybean using SNP Markers. *Food and Nutrition Sciences* 6: 974–984, 2015. doi: 10.4236/fns.2015.611101
- Moreau A, Gosselin-Badaroudine P, **Boutjdir M**, Chahine M. Mutations in the Voltage Sensors of Domains I and II of Nav1.5 that are Associated with Arrhythmias and Dilated Cardiomyopathy Generate Gating Pore Currents. *Front Pharmacol.* 2015 Dec 24;6:301. doi: 10.3389/fphar.2015.00301.
- Neuwirth LS, Volpe NP, Ng S, Marsillo A, Corwin C, Madan N, Ferraro AM, **El Idrissi A**. Taurine recovers mice emotional learning and memory disruptions associated with fragile x syndrome in context fear and auditory cued-conditioning. *Adv Exp Med Biol.* 2015; 803: 425-38. doi: 10.1007/978-3-319-15126-7\_33.

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- Nordine A, Udupa SM, Iraqi D, **Meksem K**, Hmamouchi M, **El Meskaoui A**. Correlation between the chemical and genetic relationships among *Thymus saturejoides* genotypes cultured under in vitro and in vivo environments. Chem Biodivers. 2016 Feb 25. doi: 10.1002/cbdv.201500102.
- Puckerin A, Aromolaran KA, Chang DD, Zukin RS, Colecraft HM, **Boutjdir M**, Aromolaran AS. hERG 1a LQT2 C-terminus truncation mutants display hERG 1b-dependent dominant negative mechanisms. Heart Rhythm. 2016 Jan 13. pii: S1547-5271(16)00057-6. doi: 10.1016/j.hrthm.2016.01.012.
- Rotsch D, Brossard T, **Bihmidine S**, Ying W, Gaddam V, Harmata M, Robertson JD, Swyers M, Jurisson SS, Braun DM. Radiosynthesis of 6'-Deoxy-6'[18F]Fluorosucrose via Automated Synthesis and Its Utility to Study In Vivo Sucrose Transport in Maize (*Zea mays*) Leaves. PLoS One. 2015 May 29; 10(5):e0128989. doi: 10.1371/journal.pone.0128989.
- Shi Z, Liu S, Noe J, Arelli P, **Meksem K**, Li Z. SNP identification and marker assay development for high-throughput selection of soybean cyst nematode resistance. BMC Genomics. 2015 Apr 18; 16: 314. doi: 10.1186/s12864-015-1531-3.
- Soutto M**, Chen Z, Katsha AM, Romero-Gallo J, Krishna US, Piazuolo MB, Washington MK, Peek RM Jr, Belkhiri A, El-Rifai WM. Trefoil factor 1 expression suppresses *Helicobacter pylori*-induced inflammation in gastric carcinogenesis. Cancer. 2015 Dec 15;121(24):4348-58. doi: 10.1002/cncr.29644.
- Soutto M**, Peng D, Katsha A, Chen Z, Piazuolo MB, Washington MK, Belkhiri A, Correa P, El-Rifai W. Activation of  $\beta$ -catenin signalling by TFF1 loss promotes cell proliferation and gastric tumorigenesis. Gut. 2015 Jul; 64(7): 1028-39. doi: 10.1136/gutjnl-2014-307191.
- Soutto M**, Romero-Gallo J, Krishna U, Piazuolo MB, Washington MK, Belkhiri A, Peek RM Jr, El-Rifai W. Loss of TFF1 promotes *Helicobacter pylori*-induced  $\beta$ -catenin activation and gastric tumorigenesis. Oncotarget. 2015 Jul 20; 6 (20): 17911-22.
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## **Dr. Abdelhafid Bendahmane Continues his ERC Advanced Grant**

Among 2,400 submitted projects, Dr. Bendahmane and Dr. Antoine Kreme were the only INRA scientists who received ERC funding. The success rate was only 12%. Dr. Bendahmane is Research Director in the INRA-CNRS-Université Evry-Val d'Essonne Joint Research Unit for Plant Genomics. He was granted €2.5 Million over a period of five years to recruit young scientists to work on sex determination and the production of fruits without fertilization. For more information, please visit: <http://jobs.inra.fr/en/Career-opportunities/Portraits/Abdelhafid-Bendahmane>.

**Congratulations Abdelhafid!**



**Abdelhafid Bendahmane**  
IPS-INRA, France

## **The Council's Newsletter**

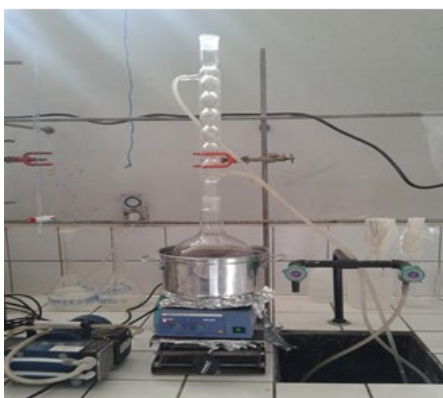
## The Council Welcomes Its New Members

### Development of New Catalysts Supported by Matrices of Natural Polymers

Ihsane's MS thesis will focus on developing new matrices supported by natural polymers developed from nanofibers of cellulose extracted from Date palm rachis (*Phoenix dactylifera*). She will focus on heterogeneous catalysis that has economic and ecologic advantages over homogeneous catalysis and is relatively easy to perform. She will first form the cellulosic matrix supported by the catalyzer then she will continue with fine chemistry techniques in different experimental conditions (homogeneous catalysis, supported heterogeneous catalysis, etc.) using materials such as palladium and other materials supported on the matrices. Finally, she will compare obtained results and defend her thesis.

Ihsane is a dynamic and ambitious young female scientist. We wish her all the best in her scientific career.

**Ihsane Kassem**  
**MS Student**  
**University Cadi Ayyad**  
**Morocco**



Materials Science Lab,  
University Cadi Ayyad, Marrakech,  
Morocco

## The Council's Newsletter

## The Council Welcomes Its New Members

### A Young Moroccan Fulbright Scholar Joins Fayetteville State University

Younes Samid, a Moroccan Fulbright FLTA at Fayetteville State University. He teaches Arabic and hold presentations on Moroccan and Arabic cultures. He is engaged in several cultural clubs and organizations on campus. He received a Bachelor degree in English Linguistics Studies from Ibn Zohr University, Agadir in 2012 and in TESOL from University of Mohamed V, Rabat in 2015. In 2012 he started working as EFL teacher at Al-Kimma in Guelmim. Younes Samid developed an early interest in educational leadership community service for he grew up participating in voluntary work. He is the secretary general of AZECS, and the treasurer of the Club "Sportif du Commune Abaynou" in Morocco. He is also a member in MATE (The Moroccan Association of Teachers of English) and MoRCE-NET (The Moroccan Resource Centers of English Network).

Younes is a dynamic and ambitious young educator. We wish him all the best in his career.



**Younes Samid, FELTA  
Fayetteville State University,  
USA**

***We Welcome & Thank All Our New &  
Existing Members!***

**The Council's Newsletter**

## The Council's Newsletter

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## BOARD OF DIRECTORS

The Current Board of Directors Was Elected for  
Two-Year Term (2016-2018)

**President:** Khalid Meksem, SIUC, USA

**Vice-President-USA & Treasurer:** Abdelmajid Kassem, Fayetteville State University, USA

**Vice-President-Europe:** Abdelhafid Bendahmane, INRA, France

**Vice-President-MENA Region & Africa:** Abdelhamid El Mousadik, Ibn Zohr University, Morocco

**Secretary:** Saadia Bihmidine, University of Texas at Arlington, USA

**Member at Large:** Mohamed Boutjdir, SUNY, USA

**Member at Large:** Abdeslem El Idrissi, CUNY, USA

## Contact Us:

Give us a call for more information about our services and/or to join us:

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