Birt-Hogg-Dubé Newsletter

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You are receiving this email because you have expressed an interest in BHD. We hope you will enjoy this and future editions. If you do not wish to receive this newsletter, please see the end of the email for instructions.

BHD Consortium Working Together

We are pleased to announce that Tijs Claeesens, a member of Dr Maurice van Steensel's lab at University Hospital Maastricht, the Netherlands, will spend six months working in Dr Andrew Tee's lab at Cardiff University, UK. This is a great example of the European BHD Consortium working together and share expertise in the area of BHD research.

New Research Funding

The Myrovlytis Trust is delighted to award a grant extension to Dr Richard Harbottle at Imperial College London, UK. The six month extension will support ongoing work into the development of prophylactic gene therapy for BHD Syndrome using non-viral S-MAR plasmid vectors.

Preimplantation Genetic Diagnosis for BHD Syndrome

The Myrovlytis Trust and Genetic Alliance UK have submitted a joint response to the Human Fertilisation and Embryology Authority following the application to use preimplantation genetic diagnosis (PGD) to avoid pregnancies affected by Birt-Hogg-Dubé.

BHDSyndrome.org Translation Facility

www.BHDSyndrome.org can now be translated into several languages. At the moment we offer a range of European languages as well as Chinese, Japanese, Hebrew and Russian. To view www.BHDSyndrome.org in another language visit our translation page here. If you would like to suggest other languages, please get in touch with us at info@bhdsyndrome.org

Getting to know you!

In this instalment of 'Getting to know you', we're featuring Dr Vera Krymskaya, Associate Professor of Medicine at the University of Pennsylvania Medical School and Desteny, who was diagnosed with BHD Syndrome earlier this year.

The interviews can be found here.

BHD Research Highlights

In the last quarter several important BHD research papers have been published. These include:

SPECIAL RELAVANCE:

Komori *et al,* 2009. A novel protein, MAPO1, that functions in apoptosis triggered by O6-methylguanine mispair in DNA. Oncogene. 2009 Feb 26;28(8):1142-50. Epub 2009 Jan 12.

- Shows FNIP2 (referred to as MAPO1) as an effector of apoptosis and interacting with mismatchrepair proteins in response to alkylating DNA damage.

CLINICAL:

Predina *et al,* 2010. Recurrent spontaneous pneumothorax in a patient with Birt-Hogg-Dubé syndrome. *Eur J Cardiothorac Surg.* Epublished ahead of print

- Case study of a patient diagnosed with Birt-Hogg-Dubé syndrome after presenting with a history of recurrent spontaneous pneumothorax, and a family history of spontaneous pneumothorax and renal cell carcinoma.

Maffé *et al,* 2010. Constitutional FLCN mutations in patients with suspected Birt-Hogg-Dubé syndrome ascertained for non-cutaneous manifestations. *Clin Genet.* Jun 7. Epublished ahead of print

- The clinical observations identified in this study contribute to the definition of the phenotypic characteristics that should be considered for BHDS diagnosis.
- *FLCN* gene was sequenced in a cohort of 19 patients presenting with kidney and/or lung manifestations. Disease causing mutations were identified in 9 of 19 (47%) families.
- Significantly this study provides clinical and molecular evidence that parotid oncocytoma, so far reported in six BHDS cases, is associated with this condition, based on the observation of a patient with bilateral parotid involvement and marked reduction of the wild-type FLCN allele signal in tumour DNA.

Vinit *et al,* 2010. Birt-Hogg-Dubé syndrome and multiple recurrent tumors. *Rev Med Interne*. Jun 22. Epublished ahead of print. Article is in French.

- Case study of a male patient who presented with a history of recurrent pneumothorax and was treated by nephrectomy for a left kidney carcinoma at the young age of 20 years.

Sempau *et al,* 2010. New mutation in the Birt Hogg Dube gene. *Actas Dermosifiliogr. 2010 Sep; 101(7):637-40.*

- Case study of a female BHD Syndrome patient. Molecular analysis identified the causative mutation to be a novel entire exon 14 deletion.

BASIC SCIENCE:

Hong *et al,* 2010. Tumor suppressor FLCN inhibits tumorigenesis of a FLCN-null renal cancer cell line and regulates expression of key molecules in TGF-beta signaling. *Mol Cancer.* 2010 Jun 23 (9):160.

- This study demonstrates a role for FLCN in the regulation of key participants in TGF-beta signalling pathway and confirms deregulation of their expression in BHD-associated renal tumours. Deregulation of genes involved in TGF-beta signalling by *FLCN* inactivation is likely to be critical step for tumourigenesis in BHD syndrome.

Nahorski *et al*, 2010. Investigation of the Birt-Hogg-Dube tumour suppressor gene (FLCN) in familial and sporadic colorectal cancer. *J Med Genet*. Jun 47(6):385-90.

- This study investigates the possible relationship between colorectal neoplasia and the *FLCN* by determining whether individuals with familial colorectal cancer of unknown cause might have an unknown germline FLCN mutation in a series of clinical and laboratory based studies.

If you would like to participate in our 'Getting to know you!' feature, please contact us at contact@BHDSyndrome.org

If you would like to submit information or a topic for the next newsletter, please contact the editor at info@BHDsyndrome.org

Myrovlytis Trust *Birt-Hogg-Dubé Family Alliance*