

# Dr Wael M. Abdel-Rahman

(Other names: Wael M. Abdel-Rahman M. Hassan)

**MBBCH, MSc (Pathology), PhD (Molec Pathology). Associate Professor of Molecular Pathology & Coordinator, MSc/PhD program in Molecular Medicine**

**University of Sharjah, College of Health Sciences, MLS**

**P.O. Box 27272, Sharjah, UAE**

**Tel 971 6 5057556 Fax 971 6 5057515**

**email whassan@sharjah.ac.ae**



**Name in publication Abdel-Rahman WM**  
**Total citations 1640, h-index 23 as of May., 2017**

## **Qualifications**

- 1- Ph.D. 2001, Edinburgh University, United Kingdom.** (Research completed at Cambridge University, UK). Field: Molecular Pathology. Thesis title: “Genomic instability, deregulation of apoptosis and treatment responsiveness in sporadic colorectal cancer”.
- 2- Histopathology M.Sc. 1995,** Pathology Department, Faculty of Medicine, Zagazig University, Egypt. This was a three-part programme spanning four years: 1<sup>st</sup> Part: Immunology and Microbiology; 2<sup>nd</sup> Part: research thesis on “*Expression of P-Glycoprotein in Non-Hodgkin Lymphoma*”; and 3<sup>rd</sup> Part clinical diagnostic histopathology and basic pathology.
- 3- M.D. 1989 (M. B., B. CH., Medical Bachelor and Bachelor of Surgery),** Faculty of Medicine, Zagazig University, Egypt. (Grade: Very Good with Honours).

## **Significant Posts/professional Experiences:**

- 1. September 2013 - Till present:** Coordinator, MSc/PhD program in Molecular Medicine and Translational Research, College of Medicine, University of Sharjah
- 2. January 2011- Till present:** Associate Professor, University of Sharjah, College of Health Sciences, M.L.S., Sharjah, U.A.E.
- 3. Sept 2007 – Till present:** Honorary Professor, department of Medical Genetics, University of Helsinki, Helsinki, Finland
- 4. September 2007 –December 2010:** Assistant Professor, University of Sharjah, College of Health Sciences, M.L.T., Sharjah, U.A.E.
- 5. January 2002 – September 2007:**
  - Senior Scientist & Molecular Pathologist, Department of Medical Genetics, Biomedicum Helsinki, University of Helsinki, Finland.
  - Assistant Professor (Lecturer in Egyptian System), Pathology Department, Faculty of Medicine, Zagazig University, Zagazig, Egypt.
- 6. April, 2001 – December, 2001:** Lecturer (Assistant Lecturer in Egyptian System), Pathology Department, Faculty of Medicine, Zagazig University, Zagazig, Egypt
- 7. January, 1999 – March, 2001:** Research Fellow, Pathology Department, University of Cambridge, Cambridge, UK.
- 8. May, 2000 –March, 2001:** Honorary Specialist Registrar, Department of Histopathology, Waldenbooks’ Hospital, Cambridge, UK.
- 9. January, 1997 – January, 1999:** Research Fellow, Department of Pathology, Faculty of Medicine, University of Edinburgh, Edinburgh, UK.
- 10. 1995-1997** Assistant Professor (Lecturer in British system), Pathology Department, Faculty of Medicine, Zagazig University, Zagazig, Egypt.
- 11. 1991-1995** Demonstrator, Pathology Department, Faculty of Medicine, Zagazig University, Zagazig, Egypt.

12. 1990 -1991: Internship (House Officer). Zagazig University Hospitals, Egypt

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### **Selected Prizes**

1. Best Undergraduate Student Poster Award, 11<sup>th</sup> Research Forum 2017, University of Sharjah, UAE
2. Best research poster prize, Sheikh Hamdan Bin Rashid Al Maktoum Award for Medical Sciences, The 9th Dubai International Conference for Medical Sciences, 14-16 December 2016, media report Published in Al Bayan newspaper 17 Dec 2016. <http://www.albayan.ae/across-the-uae/news-and-reports/2016-12-17-1.2797880>
3. Full page Media report “Cancer’s Environmental triggers” in “The National” Newspaper, 15 Jan 2015. <http://www.thenational.ae/uae/science/study-aims-to-see-if-environmental-influences-are-behind-high-cancer-rates-in-middle-east#full>
4. Annual Incentive Award – Teaching and academic performance, University of Sharjah, 2016
5. Annual Incentive Award – Research, 2015. University of Sharjah, Sharjah , UAE
6. Prize for Panel member contribution at Al Jalila Foundation meeting 2014
7. The Best Presentation at MedLab Conference, Arab Health, Dubai, UAE, 24-27 Jan., 2011
8. Annual Incentive Award – Research, University of Sharjah, 2010
9. Best research paper prize, 5th Annual Scientific Research Forum, UoS., University of Sharjah., April 2009
10. Two Finnish and International patents on use of NAV3 as diagnostic tool in colon cancer – Methods and uses involving genetic abnormalities at chromosome 12.
11. Most common cited article Prize- Critical Review Oncology/Hematology, El Sevier Publisher, 2006- 2008.
12. Best research paper prize, 4th Annual Scientific Research Forum, UoS, University of Sharjah, 7th-8th May 2008.
13. Inclusion as a Biographee in Who's Who in the World. Marquis Who's Who, NJ, USA & Top 100, Cambridge, UK as well as Top 100 and other databases.

### **Research: Appropriation & Grants**

1. University of Sharjah - University Research Board (URB) . Molecular Study of Colon and Breast Cancer Development in Obesity (PI) fund of AED 200,000, Nov., 2016 -2019
2. University Research Board (URB) -Investigating the impact of ShcD in melanoma migration and survival via ROS modulation. PI Dr Samrein Ahmed. 200 000. Nov, 2016 – 2018.
3. University of Sharjah, University Research Board (URB) Mitochondrial and Metabolic Gene Profiling of Ramadan Intermittent Fasting in Metabolic Syndrome Patients, (PI Dr Moez Al Islam) 200 000. Nov, 2016 - 2018
4. Boehringer Ingelheim- UoS Award (PI) Elucidation of cell death mechanisms of novel molecules CP-380736 and MPT-0B014 in colorectal and breast cancer. 11.500 AED, 2017.
5. Coordinator of Research group University of Sharjah. “Environment and cancer research group”. Annual budge – Operational grant only 120 000 AED, Sept 2016 – Sept 2017.
6. Al Jalila Foundation (co-investigator, PI Dr Samrein Ahmed) Studying the phosphorylation status of ShcD in melanoma upon oxidative stress: An evidence for new therapeutic target in melanoma. Budget: 270,000AED, Jan 2017 - 2019.
7. Boehringer Ingelheim- UoS Award (PI) Predicting Colorectal Cancer Risk in Subjects with Metabolic Syndrome in University of Sharjah Community. 15 000 AED 2016.
8. Boehringer Ingelheim- UoS Award (co-PI) Significance of Galanin expression on caspase 8 – mediated apoptosis and sensitivity to chemotherapy in colon cancer cells. 15 000 AED 2016.

9. University of Sharjah, (PI), interdisciplinary grant 135000 AED. Bisphenol A and colorectal carcinogenesis. Sep 2015 - 2017
10. Sheikh Hamdan Bin Rashid Al Maktoum Medical Award- Optimizing the differentiation of human induced pluripotent stem cells derived from diabetic patients towards insulin secreting beta cells of pancreas. 167,500 AED, 2015 (co-investigator).
11. Sheikh Hamdan Bin Rashid Al Maktoum Medical Award- Bone Regeneration for Dental Transplantation. . 100,000 AED, 2015 (co-investigator).
12. Coordinator of Research group University of Sharjah. "Environment and cancer research group". Annual budget 350 000 AED June 2015 – 2017.
13. Study the Molecular Changes Associated with the Dietary Chemoprevention of Camel Milk (*Camelus dromedarius*) against Azoxy methane-Induced Colorectal Cancer in Fischer 344 Rat Model. Coinvestigator. UoS.
14. Al Jalila Foundation – PI- Molecular Mechanisms of carcinogenesis by environmental toxins 2014 -2016
15. Boehringer Ingelheim- UoS Award (PI) 1-VEGF-c and response to antiangiogenic therapy in relation to the mismatch repair status of colorectal cancers.
16. Boehringer Ingelheim- UoS Award (PI) 2- HIF-1 $\alpha$  and response to antiangiogenic therapy in relation to the p53 status of breast and colorectal cancers.
17. Terry Fox Foundation grant for cancer research (P.I.) 400 000,00 AED 2012-2015
18. University of Sharjah, travel grants to EACR 2008, Nice France, Finland & China 2009.
19. University of Sharjah, personal Seed Grant, 2008-2010 (P.I).
20. University of Sharjah, Molecular Genetics Research Group, Grant for 2007/2008 (shared grant).
21. Academy of Finland, Research Costs Fund, August 2005- August 2007 (P.I.).
22. Academy of Finland Research Position, August 2005- August 2007 (P.I.).
23. Finnish Cancer Institute 2005-2006 postdoctoral scientist salary position (cancelled by the applicant, W. Abdel-Rahman, due to conflict with the above grant).
24. University of Helsinki Chancellor Travel grants 2004-2007.
25. Academy of Finland; Appropriation for Postdoctoral researches; 2002-2004; 87,780.00 euros.
26. Finnish Cancer Institute 2003 travel grant.
27. Finnish Cancer Institute and Sigrid Juselius Foundation grants 2002-2012 shared with Prof Päivi Peltomäki.\
28. More than 10 other different grants as co-investigator with Prof Peltomaki group, Helsinki University, Finland 2001 - 2007

### **Research: Experience, Supervision, Editorial Boards...etc**

#### **I- Postgraduate Supervision:**

1. Supervised and co-supervised > 15 MSc & PhD students at University of Sharjah (Main supervisor) & University of Helsinki (co-supervisor).
2. Supervised and co-supervised > 30 undergraduate student projects at University of Sharjah.

#### **II- Editorial Boards**

1. Editorial Board Member of World J of Gastrointestinal Oncology, Baishiding, China
2. Editorial Board Member of SciTz Clinical and Medical Oncology, USA
3. Editorial Board Member of SRL Oncology & Hematology, USA
4. Editorial Board Member of Hamdan Medical Journal, UAE.
5. Editorial Board Member of America Journal of Molecular Biology, USA.
6. Editorial Board Member of International Journal of Medical Biotechnology & Genetics (IJMBG), SCiDoc publisher Delaware, USA
7. Molecular Medicine open Access

#### **III- Referee for many Scientific Journals Including**

1. Oncotarget (IF 6.3)

2. Lancet Oncology (IF 24.7),
3. Gut (IF 18),
4. Gastroenterology (IF 12.7),
5. World Journal of Gastroenterology (IF 2.5)
6. Colorectal Diseases (IF 2)
7. Translational Oncology (IF 4).

#### **IV- Board Member & Referee in Scientific Competition, Grants, etc**

1. Referee, College of Medicine Science days 2016 and 2017
2. Refree, postgraduate competition- 11th Research Forum 2017, University of Sharjah, UAE.
3. Chair of Research Committee, CHS, UoS, 2014 – till present: in charge of evaluation of all research fund, research visits and conference applications.
4. Scientific board member, Ministry of Higher Education Post graduate Conference, Al-Ain UAE, 2016
5. Sharjah Islamic Bank Award evaluation- CHS- 2016
6. Bohringer Ingelheim \_UoS Research grant, scientific Panel- 2015
7. Bohringer Ingelheim \_UoS Research grant, scientific Panel- 2014
8. Executive Chair of Molecular Research Domain, in charge of refereeing and evaluation of all applications submitted from the Medical Campus to University of Sharjah Grants 2013-2014.
9. Intel- Ministry of Education, Science Arab World Referee 2012
10. Bohringer Ingelheim \_UoS Research grant scientific Panel- 2013
11. Organizing/Scientific committee member, International Conference of Personalized Medicine and Targeted Therapies in Cancer, Sharjah, UAE 1st Jan to 2nd Feb 2013.
12. Intel- Ministry of Eduaction, Science Arab World, Referee, Dubai, 2011

#### **V- Research Achievements, Expertise**

1. Identification of predisposition genes to subsets of familial colon cancer and novel findings in colorectal carcinogenesis.
2. Long experience (around 25 years) in basic molecular approaches dealing with DNA, RNA, mutation analysis and more complicated molecular techniques.
3. Successfully using expression & MiR microarray technologies in many research projects.
4. Confident with tissue culture and cell line manipulation (cloning, transfection..ect), drug treatment, and irradiation experiments.
5. Comprehensive experience in advanced molecular cytogenetics and FISH-based technique including CGH and SKY/m-FISH together with the basic cytogenetic experience required for karyotyping human chromosomes.
6. Hold UK licence in radioactive work as well as Xenografts and related small animal work.
7. Comprehensive histopathological experience that is essential for cancer research and immunohistochemistry.
8. Attended more than 100 courses about different research technologies and IT.

#### **University & Community Services, Committees served, etc.**

1. Member of the University of Sharjah Post Graduate Council since 2012 till present
2. Chair of College of Health Sciences Research & Postgraduate studies Committee 2014 till present.
3. Honorary member of College of Medicine Research Committee 2015/2016.
4. Scientific Advisory Board – Sharjah Institute for Medical Research, Sharjah, UAE. 2014 -2016
5. Chair and member of > 20 selection/recruitment committees for appointing Professors, Lectures & technicians at College of Health Sciences.
6. Chair and member of > 12 selection committee for appointing research assistants and postdoctoral researchers, Senior scientists at Sharjah Institute for Medical Research (SIMR).

7. Member of >5 promotion committees at College of Health Sciences, University of Sharjah.
8. A member of UoS representatives at Halal Conferences, Prince Sigkola University, Thailand 2014.
9. Panel member: The challenges and opportunities in biomedical research in the region, Al-Jalila Foundation meeting, Dubai, 2014
10. MoH license examination committee - member, Ministry of Health, Dec 2013
11. Members of the University of Sharjah Ethics Committee 2010 till 2014.
12. Lecture on ‘ Research Fund applications’, College of Health Sciences faculty members, 23 Oct 2014
13. CME Lectures at Saqer Hospital , RAK Nov., 2012 (7 CME points)
14. Member of UAE/MOH task force for Legislating stem cell therapy and applications in UAE 2012.
15. A Key member of the founding/advising committee of the new “International Sharjah Biomedical Research Center” at the Sharjah Medical Excellence Cluster (SMEC), Medical Colleges campus, to serve UAE community and Research group leader.
16. Judge of Intel Science competition/Arab World 2011 & 2012.
17. Magazine Article in MedLab magazine, Molecular diagnosis of familial colorectal cancers – Where are we, issue 1-2011
18. Contribution to the annual Cancer Awareness Days at University of Sharjah
19. CME public Lecture on: Familial Colorectal Cancer Medical Campus and University hospital, UoS1-Mar-11.
20. Public Lecture on: Breast Cancer prevention & diagnosis, Khorfakan branch of UoS, 10-Feb-11
21. Member of the Student Affairs and Academic Advising, a CHS College level committee, since 2009 till present.
22. Member of the College Council – CHS. Since 2009 till 2011, then 2015/2016.
23. Invited Lecture at the ‘World Cancer Congress’ an International meeting, delivered a talk on ‘familial colorectal cancers’ 23-26 June 2009, Beijing, China.
24. Member and repertoire of the Student Assessment Committee ‘SAC’; College level committee, academic year 2008/2009, CHS.
25. Adhoc –Subcommittee- on Course Alignment Biology, Anatomy & Physiology, Pathophysiology; College level committee. Member & meeting repertoire; Jan 2009; Jan 2009
26. Activity in UoS Open Days aimed at potential students, UoS,14-25th April
27. Presentation at 1st Emirates Pathologist Meeting entitled “Applications of Immunohistochemistry in Hereditary Cancer Diagnosis”, audience Emirates Pathologists. meeting at UoS College of Medicine,1st March 2008
28. Collaboration with National Cancer Institute, Egypt on the study of young age cancers serving Egyptian and international community, 2007 - ongoing
29. Ongoing collaboration with Department of Medical Genetics, Helsinki University, Finland, to serve the international community on cancer management. Ongoing
30. Chair and member of many Adhoc committees for - Evaluation of research projects submitted for Sharjah Islamic Bank, “Dana Gas” Prize,. Tanmeyat” Prize, ...ect
31. Member of MLT Strategic planning - research committee ,College level, committee member, Spring 2008, Spring 2008

*At previous post – University of Helsinki*

32. Established and maintained the immunohistochemistry techniques for mismatch repair proteins and other tumor markers locally. This effort has had applications in patient care and genetic diagnosis of tumor specimens in addition to many worldwide collaborative research projects.
33. Initiated international projects to address some of the health problems in local communities such as ‘the young age cancers in Egypt.
34. Participated in the local Finnish HNPCC group activities and annual meetings by giving talks and constructive discussions as well as sharing the social activities.
35. Participated in the annual joint meetings. giving talks and constructive discussions.

36. Delivered two general lectures in Biomedicum Helsinki as part of Department of Medical Genetics seminar series serving postgraduates and continuing medical education.
37. Contributed to two international societies' activities and annual meetings, namely: The International Society for Gastrointestinal Hereditary Tumours (InSiGHT) and European association for cancer research (EACR).

### **Teaching**

Around 25 years of teaching the subjects of Pathology (General, System), Molecular Pathology, Pathophysiology, Histology, Biology, Histological Micro-techniques (both theory and lab), Genetics of Cancer Cell, Advanced Lab techniques and supervising student projects and clinical practice, both at undergraduate and postgraduate levels. I have had a major role in establishment and teaching advanced histopathological techniques to PhD and MSc students at Helsinki University. The teaching methodologies and strategies are highly appreciated by students as evidenced by the course evaluations reports by students.

1. Inaugurating faculty member for the MSc & PhD program in 'Molecular Medicine and Translational Research' who contributed to the accreditation of the program, and now the coordinator of the program.
2. Established & teach new courses and supervise MSc students at the above program
3. Six years as Associate professor and 4 year as Assistant professor at University of Sharjah. Developed all course contents, computer based teaching and co-coordinated Human Biology course at Pharmacy and Cancer Biology MSc course at Medicine.
4. 1 years as Assistant Professor at Pathology Department, Zagazig University, Egypt
5. 10 years as Lecturer at Pathology Department, Zagazig University, Egypt
6. Teaching Molecular Pathology sessions at Cambridge University, UK.
7. Co-supervising PhD students and giving practical teaching of histopathological techniques to graduate and postgraduate students at Helsinki University, Finland (6 years).
8. Around 50 lectures and talks in international meetings and conferences & Periodic research talks at Departmental meetings and Seminars since 1990 till present.

### **Diagnostic Histopathology Experience**

Of more than 15 years (part-time) including 1 years at the UK holding "GMC-General Medical Counsel" registration:

1. Experience at Helsinki Univ. in "Molecular Histopathology" relevant to research.
2. At Addenbrook's Hospital, Cambridge, UK, I had 1 year training in diagnostic histopathology as outlined by the Royal College of Pathologists and holding GMC registration.
3. Part time clinical attachment at Edinburgh University, UK, including weekly diagnostic seminars and 4 CME credit-approved courses in diagnostic Histopathology (2 weeks each).
4. Throughout my post as pathologist at Zagazig University (7 years) I took part in the routine histopathological diagnosis of all kind of specimens delivered to the Department.

### **Society Membership**

1. The European association for Cancer Research.
2. The American Association for Cancer Research.
3. The Asian Pacific Society for Cancer Prevention
4. The Egyptian Medical Syndicate.
5. The Egyptian Society for Pathologists.

## RESEARCH ARTICLES PUBLISHED IN REFEREED INTERNATIONAL JOURNALS.

Total citations 1640, h-index 23 as of May., 2017

1. Farheen Alam, Fatima Mezhal, Hussain EL Hasasna, Vidhya A Nair, Aravind S.R., Maha Saber Ayad, Ahmed El-Serafi, **Wael M Abdel-Rahman**. The role of p53-microRNA 200-Moesin axis in invasion and drug resistance of breast cancer cells. *Tumor Biology*, accepted 2017 (in press)
2. **Wael M Abdel-Rahman**, Noura A. Al-khayyal, Vidhya A Nair, Aravind S.R., Maha Saber-Ayad. Role of AXL in invasion and drug resistance of colon and breast cancer cells and its association with p53 alterations. *World J Gastroenterology*. 2017, 23(19):3440-3448.
3. **Abdel-Rahman WM**, Faris ME, Peltomäki P. Molecular determinants of colon cancer susceptibility in the East and West. *Curr Mol Med*. 2017, 17:34-45.
4. **Abdel-Rahman WM**, Lotsari-Salomaa JE, Kaur S, Niskakoski A, Knuutila S, Järvinen H, Mecklin JP, Peltomäki P. The Role of Chromosomal Instability and Epigenetics in Colorectal Cancers Lacking beta-Catenin/TCF Regulated Transcription. *Gastroenterology Research and Practice*. 2016 Vol 2016: 1-11 Article ID 6089658.
5. Joensuu EI, Nieminen TT, Lotsari JE, Pavicic W, **Abdel-Rahman WM**, Peltomäki P. Methyltransferase expression and tumor suppressor gene methylation in sporadic and familial colorectal cancer. *Genes Chromosomes Cancer*. 2015 Dec;54(12):776-87.
6. Nieminen TT, O'Donohue MF, Wu Y, Lohi H, Scherer SW, Paterson AD, Ellonen P, **Abdel-Rahman WM**, Valo S, Mecklin JP, Järvinen HJ, Gleizes PE, Peltomäki P. Germline Mutation of RPS20, Encoding a Ribosomal Protein, Causes Predisposition to Hereditary Nonpolyposis Colorectal Carcinoma Without DNA Mismatch Repair Deficiency. *Gastroenterology* 2014 Sep;147(3):595-598.e5.
7. **Abdel-Rahman WM**, Nieminen TT, Shoman S, Eissa S, Peltomäki P. Loss of *p15<sup>INK4b</sup>* Expression in Colorectal Cancer is Linked to Ethnic Origin. *Asian Pacific Journal for Cancer Prevention*. 2014;15(5):2083-2087.
8. **Abdel-Rahman WM**, Moustafa YM, Ahmed BO, Mostafa RM. Endocrine disruptors and breast cancer risk – time to consider the environment. *Asian Pacific Journal for Cancer Prevention*. 2012 13(12) 5937-5946
9. Saleh EM, El-Awady RA, Eissa NA, **Abdel-Rahman WM**. Antagonism between curcumin and the topoisomerase II inhibitor etoposide: A study of DNA damage, cell cycle regulation and death pathways. *Cancer Biol Ther*. 2012 Sept; 13(11):1058-1071.
10. **Abdel-Rahman W M**, Ruosaari S, Knuutila S, P Peltomäki. Differential roles of EPS8 in carcinogenesis: Loss of protein expression in a subset of colorectal carcinoma and adenoma. *World Journal of Gastroenterology*. 2012 Aug 7;18(29):3896-903.
11. Lotsari JE, Gylling A, **Abdel-Rahman WM**, Nieminen TT, Aittomäki K, Friman M, Pitkänen R, Aarnio M, Järvinen HJ, Mecklin JP, Kuopio T, Peltomäki P. Breast carcinoma and Lynch syndrome: molecular analysis of tumors arising in mutation carriers, non-carriers, and sporadic cases. *Breast Cancer Res*. 2012 Jun 12;14(3):R90.
12. Carlsson E, Ranki A, Sipilä L, Karenko L, **Abdel-Rahman WM**, Ovaska K, Siggberg L, Aapola U, Assämäki R, Häyry V, Niiranen K, Helle M, Knuutila S, Hautaniemi S, Peltomäki P, Krohn K. Potential role of a navigator gene NAV3 in colorectal cancer. *Br J Cancer*. 2012 Jan 31;106(3):517-24.
13. Nieminen TT, Shoman S, Eissa S, Peltomäki P, **Abdel-Rahman WM**. Distinct Genetic and Epigenetic Signatures of Colorectal Cancers According to Ethnic Origin. *Cancer Epidemiol Biomarkers Prev*. 2012 Jan;21(1):202-11.
14. Nieminen TT, **Abdel-Rahman WM**, Ristimäki A, Lappalainen M, Lahermo P, Mecklin JP, Järvinen HJ, Peltomäki P. BMPRI1A mutations in hereditary nonpolyposis colorectal cancer without mismatch repair deficiency. *Gastroenterology*, 2011 Jul;141(1):e23-6.

15. Nieminen TT, Gylling A, **Abdel-Rahman WM**, Nuorva K, Aarnio M, Renkonen-Sinisalo L, Järvinen HJ, Mecklin JP, Bützow R, Peltomäki P. Molecular analysis of endometrial tumorigenesis: importance of complex hyperplasia regardless of atypia. *Clin Cancer Res.* 2009;15(18):5772-83.
16. **Abdel-Rahman WM**. Genomic instability and carcinogenesis: an update. *Current Genomics* 2008, 9:535-541
17. **Abdel-Rahman WM**, Peltomäki P. Lynch syndrome and related familial colorectal cancers. *Crit Rev Oncog.* 2008;14(1):1-22
18. Joensuu EI, **Abdel-Rahman WM**, Ollikainen M, Ruosaari S, Knuutila S, Peltomäki P., Epigenetic signatures of familial cancer are characteristic of tumor type and family category. *Cancer Research* 2008 Jun 15;68(12):4597-605.
19. Gylling AH, Nieminen TT, **Abdel-Rahman WM**, Nuorva K, Juhola M, Joensuu EI, Järvinen HJ, Mecklin JP, Aarnio M, Peltomäki PT. Differential cancer predisposition in Lynch syndrome: insights from molecular analysis of brain and urinary tract tumors. *Carcinogenesis.* 2008 Jul;29(7):1351-9.
20. Hahtola S, Burghart E, Jeskanen L, Karenko L, **Abdel-Rahman WM**, Polzer B, Kajanti M, Peltomäki P, Pettersson T, Klein CA, Ranki A. Clinicopathological characterization and genomic aberrations in subcutaneous panniculitis-like T-cell lymphoma. *J Invest Dermatol.* 2008 Sep;128(9):2304-9.
21. **Abdel-Rahman WM**, Kalinina J, Shoman S, Eissa S, Ollikainen M, Elomaa O, Eliseenkova A, Bützow R, Mohammadi M, Peltomäki P. Somatic mutations of *FGF9* in colorectal and endometrial carcinomas, (2008) *Human Mutation*, 29(3):390-397.
22. **Abdel-Rahman WM**, Peltomäki P, Knuutila S, Harrison DJ, Bader SA. Truncation of MBD4 predisposes to reciprocal chromosomal translocations and alters the response to therapeutic agents. (2008) *DNA Repair* 7:321-328.
23. Hahtola S, Burghart E, Puputti M, Karenko L, **Abdel-Rahman WM**, Väkevää L, Jeskanen L, Virolainen S, Karvonen J, Salmenkivi K, Kinnula V, Joensuu H, Peltomäki P, Klein C, Ranki AM. Cutaneous T-cell lymphoma-associated lung cancer show chromosomal aberrations differing from primary lung cancer. (2008) *Genes Chromosomes and Cancer*, 47:107-117.
24. Ollikainen M, Gylling A, Nupponen N, **Abdel-Rahman WM**, Butzow R, Peltomäki P. Patterns of PIK3CA alterations in familial colorectal and endometrial carcinoma. (2007), *International Journal of Cancer*. 121(4):915-920.
25. Gylling A, **Abdel-Rahman WM**, Juhola M, Nuorva K, Hautala E, Jarvinen HJ, Mecklin JP, Aarnio M, Peltomaki P. (2007). Is gastric cancer part of the tumor spectrum of hereditary nonpolyposis colorectal cancer? - A molecular genetic study. *Gut.* 56(7):926-933
26. Ollikainen M, Hannelius U, Lindgren CM, **Abdel-Rahman WM**, Kere J, Peltomaki P. Mechanisms of inactivation of MLH1 in hereditary nonpolyposis colorectal carcinoma: a novel approach. *Oncogene.* 2007 26(31):4541-4549.
27. **Abdel-Rahman WM**. Mutations of  $\beta$ -catenin and KRAS in colorectal carcinomas. *Digestive Diseases and Sciences* (2006) 51(3):616-617.
28. **Abdel-Rahman WM**, Mecklin JP., Peltomäki P. (2006) The genetics of HNPCC: application to diagnosis and screening. *Critical Reviews in Oncology/Haematology* 58:208-220
29. Renkonen E, Nieminen P, **Abdel-Rahman WM**, Moisio A-L, Järvelä I, Arte S, Järvinen HJ, Peltomäki P. Adenomatous polyposis families that screen APC mutation negative are genetically heterogenous. *Journal of Clinical Oncology* 2005;23(24):5651-9.
30. Ollikainen M, **Abdel-Rahman WM**, Moisio A-L, Lindroos A, Kariola R, Jarvela I, Poyhonen M, Butzow R, Peltomäki P. (2005) Molecular analysis of familial endometrial carcinoma: a manifestation of hereditary non-polyposis colorectal cancer or a separate syndrome. *Journal of Clinical Oncology* 23(21):4609-4616.
31. Kariola R, **Abdel-Rahman WM (equal contribution)**, Ollikainen M, Butzow R, Nyström M, Peltomäki P. (2005) APC and beta-catenin protein expression patterns in HNPCC- related endometrial and colorectal cancers. *Familial Cancer* 4(2):187-90.
32. **Abdel-Rahman W M**. (2005) Multiple reciprocal translocations in carcinomas. *Cancer Genetics & Cytogenetics*, 158:194-195.



33. **Abdel-Rahman WM**, Ollikainen M, Kariola R, Järvinen H, Mecklin J-P, Nyström-Lahti M, Knuutila S, Peltomäki P. (2005) Comprehensive characterization of HNPCC-related colorectal cancers reveals striking molecular features in families with no germline mismatch repair gene mutations. *Oncogene*, 24:1542-1551.
34. **Abdel-Rahman WM**, Lohi H., Knuutila S., and Peltomäki P. (2005) Restoring mismatch repair does not stop the formation of reciprocal translocations in the colon cancer cell line HCA7 but further destabilizes chromosome number. *Oncogene* 24:706-713.
35. **Abdel-Rahman WM** and Peltomäki P. (2004) Molecular basis and diagnostics of hereditary colorectal cancers. *Annals of Medicine*, 36: 379-388
36. Raevaara TE, Gerdes AM, Lonnqvist KE, Tybjaerg-Hansen A, **Abdel-Rahman WM**, Kariola R, Peltomäki P, and Nyström-Lahti M. (2004) HNPCC mutation MLH1 P648S makes the functional protein unstable, and homozygosity predisposes to mild neurofibromatosis type 1. *Genes Chromosomes & Cancer*, 40: 261-265.
37. Renkonen E, Zhang Y, Lohi H, Salovaara R, **Abdel-Rahman WM**, Nilbert M, Aittomäki K, Järvinen HJ, Mecklin J-P, Lindblom A, Peltomäki P. (2003) Altered expression of MLH1, MSH2 and MSH6 in predisposition to hereditary nonpolyposis colorectal cancer. *Journal of Clinical Oncology* 21:3629-37.
38. Raevaara TE, Vaccaro C, **Abdel-Rahman WM**, Mocetti E, Bala S, Lönnqvist KE, Kariola R, Lynch HT, Peltomäki P, Nyström-Lahti M (2003) Pathogenicity of the hereditary colorectal cancer mutation hMLH1 del616 linked to shortage of the functional protein. *Gastroenterology* 125:501-509.
39. **Abdel-Rahman WM**, Katsura K, Rens W, Gorman PA, Sheer D, Bicknell D, Bodmer WF, Arends MJ, Wyllie AH, Edwards PAW (2001). Spectral karyotyping suggests additional subsets of colorectal cancers characterized by pattern of chromosome rearrangement. *Proceedings of the National Academy of Sciences USA* 98: 2538-2543.
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