

CURRICULUM VITAE for Zeynep Tümer

Female, born in April 6th, 1959 in Turkey
Danish citizen since 1997
Languages: Turkish, English, Danish

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Education*

- 2014 DMSc Degree, Faculty of Health Sciences, KU: *Molecular Genetics of Menkes disease*.
1996 PhD Degree, Faculty of Health Sciences, KU: *Fine localization of the Menkes disease gene*.
1985 Medical Degree, Egean University Medical School, Izmir, Turkey. Graduation thesis: *Pathogenetic mechanism in an experimental acute pancreatitis model in mice*.

Appointments

- 2008- **Professor** and Chief of R&D, Applied Human Molecular Genetics, Kennedy Center, Department of Clinical Genetics, Copenhagen University Hospital, Rigshospitalet
2008- **Leader**, Microarray diagnostic facility, Kennedy Center
2001-2008 **Vice director**, Wilhelm Johannsen Centre for Functional Genome Research established by the Danish National Research Foundation, ICMM, Faculty of Health Sciences, KU
1999-2008 **Associate professor**, ICMM, Faculty of Health Sciences, KU
2004-2008 **Leader** of the Cytogenetic Diagnosis Lab., ICMM, Faculty of Health Sciences, KU
2006 **Head of Department**, Department of Medical Genetics, IMBG, Faculty of Health Sciences, KU
2005-2006 **Deputy Head of Department**, Department of Medical Genetics, IMBG, Faculty of Health Sciences, KU
1996-1999 **Assistant professor**, Department of Medical Genetics, IMBG, Faculty of Health Sciences, KU
1996-1999 **Scientific consultant**, John F. Kennedy Institute
1996 **Scientific consultant**, Istanbul Univ., Turkey, under UNESCO program TOKTEN
1990-1996 **Clinical assistant, Research fellow** and **Senior scientist**, John F. Kennedy Institute.
1989-1990 **Project leader**: "Establishing selfhelping groups among immigrant families with handicapped children" and "Introducing prenatal diagnosis of hemoglobinopathies in Denmark," John F. Kennedy Institute
1988-1989 **Voluntary**, Immune-haematology labororium, States Serum Institute, Copenhagen
1985-1987 **General practitioner**, Internal Medicine and Surgery in Biga State Hospital, Çanakkale, Turkey

* *KU*, University of Copenhagen; *ICMM*, Department of Cellular and Molecular Medicine; *IMBG*, Institute for Medical Biochemistry and Genetics, Faculty of Health Sciences

Publications

- **142 scientific manuscripts** (published or in press) in peer-reviewed journals with impact factor (abstracts, submitted manuscripts and manuscripts in preparation are excluded). **First author in 26 manuscripts; single author in 2 manuscripts; senior author in 45 manuscripts**.
- **10 book-chapters** in miscellaneous text books.
- **8 miscellaneous publications** e.g. book translation etc
- **Citation indices from Google Scholar**: Citation 3710; h-index 29.

Research supervision

- Current supervisions: 1 PhD, 4 Post doctoral students
- Completed supervisions: 21 PhD, 14 MSc, 11 BSc, and several international research fellows/Erasmus students

Assessment committees

Member or chairman of several national/international PhD and MSc assessment committees; professor assessment committee; several hiring committees, censorship in bachelor projects; EU projects

Scientific meetings

> 50 invited lectures/oral presentations, >30 co-authorship in oral presentations and >100 poster presentations

Teaching experience

- > 3000 confrontation hours: lectures, theoretical/practical courses in medical genetics, molecular biology, clinical genetics for medical, dental, human biology and molecular medicine students (Faculty of Health Sciences, KU). Current lecturer in Genetic Course for human biology students (course leader Lotte Vogel). Preparation of the currently used cases in Medical Genetic course for medical and molecular medicine students (course leader Anne Nørremølle).
- Supervision of >20 students in OSVAL I and II in genetics (Faculty of Health Sciences, KU).
- Lecturer in several pre- and postgraduate courses.
- Member of Danish Censor Corps in Medical Genetics since 2009.
- E-learning in genetics for primary school (grade 7-9) students, supported by the Ministry of Children and Education (in process).

Referee-reviewer

Nature Rev Neurology, Am J Hum Genet, FASEB J, Am J Med Genet, Acta Paed, Chem Rev, Clin Genet, Gene, J Inher Met Dis, Eur J Hum Genet, Hum Genet, Brain Res, Brain Dev, Biochim Biophys Acta, Gen Med, Neuropaed, Biological Psychiatry, PlosOne, J Med Genet etc.

Scientific collaboration

National collaborations: Several research institutions and clinical departments in Denmark, including Faculty of Health Sciences, KU; Aarhus University and Skejby Hospital; Copenhagen; Center for Biological Sequences (CBS), Technical University of Denmark (DTU); Central Region (Region H) hospital clinics.

International collaborations include,

- Pan-European collaboration on Tourette Syndrome (TS)
 - European Network for TS (COST action BM0905) – representative of Denmark, management committee
 - TS-EUROTRAIN (Marie-Curie ITN, PITN-GA-2012-316978) – Workpackage leadership, co-leadership
- Pan-European collaboration on imprinting disorders (ID)
 - European Network for Human Congenital Imprinting Disorders (COST action BM1208)

Microdeletion/-duplication syndromes (Sweden, Holland, and several other European countries and transatlantic researchers); Next Generation Sequencing – Exome Sequencing (BGI- Beijing Genome Institute).

Diagnostic activities

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| 2011 | Curator of Menkes Disease and ATPase(Cu ⁺⁺ transporting, alpha polypeptide) database, LOVDdb (Leiden Open Variation Database) https://grenada.lumc.nl/LOVD2/MD/home.php?select_db=ATP7A |
| 2008- | Leader of the Microarray diagnostic facility at the Kennedy Center: Establishment of high resolution microarray technology. Responsibility of the method and reporting of the results to the clinical departments. Performance of data analysis and evaluation of the results and their relevance to the phenotype of the patients. Education of young clinicians in microarray reporting and evaluation of the results. Responsibility for method for diagnostic FISH (Flourescent in situ hybridization) analysis at the Kennedy Center. |
| 2004-2008 | Leader of the Cytogenetics Laboratory, Medical Genetics Clinic, ICM, Faculty of Health Sciences, KU. |

Reporting of the diagnostic chromosome analyses during this period.

1993-1997 Establishment of genetic diagnostic test for Menkes disease at KC, performance of the genetic test (pre- and postnatal diagnosis), evaluation of the results, reporting of the results. Investigated about 300 patients and their families for mutations and carried out post-/pre-/carrier diagnosis during this period.

Fund-raising

Grant support as PI at the level of **16 Million DKK since 2008** during employment at the Kennedy Centre. Establishment of WJC, Danish National Research Foundation Center as vice director 2001-2008 (PI, Center leader Prof. Niels Tommerup). Co-applicant of several grants for continuance of our research team at WJC (> 30 M DKK) and at the Kennedy Center (> 13M DKK).

Grants at PI level:

- The Ministry of Children and Education: “Who am I?” E-learning in genetics for primary school – 500.000 DKK (2013-2015)
- TS-EUROTRAIN (Marie Curie ITN) : Tourette Syndrome – Total budget 3M ECU, Kennedy budget 2.4M DKK (2013-2015)
- Lundbeck Foundation: Tourette Project— 3M (2014-2016)
- Danish Strategic Research Council: Novel Treatments of Cognitive Dysfunction (COGNITO)—Total budget 17M DKK, KC budget 1.2M DKK (2012-2013)
- Dagmar Marshalls Fond – Tourette Syndrome and co-morbidity disorders – 60.000 DKK (2011)
- Signe og Peter Gregersens Mindefond: Neurodevelopmental Disorders and Microarray – 48.000 DKK (2011)
- PhD Grant (KU) -- Tourette Syndrome – 2.4M DKK (2011-2013)
- Danish Agency for Science, Technology and Innovation (FI), Joint PhD with DTU: Nanocytogenetics – 2.4M DKK (2010-2013)
- Lundbeck Foundation: Tourette Project – 3M DKK (2009-2011)
- Neurocluster: Age Related X-inactivation – 600.000 DKK (2009)

Research Interests

Main research interest is identifying genes and genetic/epigenetic mechanisms involved in human neurodevelopmental disorders through investigation of cytogenetic abnormalities, copy number variations or variations on sequence level using chromosome microarray methodologies and next-generation sequencing (NGS) based technologies. The main aim of the research is to apply the results to clinical diagnostics. The current projects include Tourette syndrome and co-morbidities (ADHD, OCD, Autism etc.), intellectual disabilities, imprinting disorders and copy number variation related congenital disorders.