(August 12, 2015)
CURRICULUM VITAE

NAME: **DAS, Kingshuk, M.D.**

ADDRESS: [redacted]

EDUCATION:

- B.A. (Biochemistry), Case Western Reserve University, 1996
- M.D., Case Western Reserve University, 2002
- Internship (Internal Medicine), UCLA-West Los Angeles VA, 2004
- Residency (Clinical Pathology), Washington University, 2007
- Residency (Clinical Pathology-Flexible Year), Los Angeles County-USC, 2008
- Fellowship (Clinical Molecular Genetics/American Board of Medical Genetics), UCLA, 2010
- Leadership Career Development Program, UCLA Department of Pathology and Laboratory Medicine, 2014-
- Leadership for Physician Executives, Harvard Medical School, April 2014

LICENSURE:

- State of California (Physician and Surgeon), Certificate Number A100259

BOARD CERTIFICATION:

- American Board of Pathology (Clinical Pathology), 2010-

PROFESSIONAL EXPERIENCE:

Current Position:

- Health Sciences Assistant Clinical Professor, UCLA David Geffen School of Medicine, Department of Pathology and Laboratory Medicine, 10/2010-
- Associate Medical Director, UCLA Clinical Laboratories, 8/2013-
- Director of Operations, Genetic Medicine, 10/2011-
- Associate Medical Director, Molecular Pathology, 10/2010-
- Associate Faculty, UCLA Intercampus Medical Genetics Training Program, 01/2011-
- Associate Faculty, Clinical Genetic Molecular Biologist Scientist (CGBMS) Training Program, UCLA Department of Pathology and Laboratory Medicine
- Director of Molecular Biology, "RadPath" Integrated Radiology-Pathology Diagnostics Initiative, 02/2011-6/2014

Previous Positions:

- Molecular Pathology Research Fellow, Cleveland Clinic Foundation, 2004-05
- Post-Doctoral Fellow, Cleveland Clinic Foundation, 2002-03

PROFESSIONAL ACTIVITIES:

Committee service:

- Anatomic Pathology/Beaker Molecular Pathology Development Committee, 2015-
- Search Committee, Associate Director of Blood Banking and Transfusion Medicine, UCLA Department of Pathology and Laboratory Medicine, 2015
- Anatomic Pathology Informatics Committee, UCLA Department of Pathology and Laboratory Medicine, 2014-
- Clinical Excellence Committee, UCLA Ronald Reagan Medical Center, 2013-
- Quality Improvement Strategic Initiative Committee Member, UCLA Department of Pathology and Laboratory Medicine, 2013-
- Pathology Professional Group, Practice Plan Executive Board Ad Hoc Member, UCLA Department of Pathology and Laboratory Medicine, 2013-2014
- Pathology Professional Group, Practice Plan Executive Board Treasurer, UCLA Department of Pathology and Laboratory Medicine, 2013-2014
- Search Committee, Associate Director of Blood Banking and Transfusion Medicine, UCLA Department of Pathology and Laboratory Medicine, 2012
- Clinical Laboratory Activities Committee, Ronald Reagan UCLA Medical Center, 09/2011-01/2013
- Search Committee, Associate Director of Clinical Chemistry, UCLA Department of Pathology and Laboratory Medicine, 2011
- RadPath Oversight Committee, UCLA Departments of Radiology, and Pathology and Laboratory Medicine, 2011-
- Clinical Genomics Joint Venture, UCLA Department of Pathology and Laboratory Medicine, 02/2011-12/2011
- Clinical Pathology Education Committee, UCLA Department of Pathology and Laboratory Medicine, 10/2010-
- Selection Committee for COMACC Clinical Chemistry fellowship, 8/2014-
- Selection Committee for Pathology PGY-1 residents, 10/2010-
- Selection Committee for ABMG CMG fellowship, 10/2010-
- Selection Committee for ACGME MGP fellowship, 10/2010-
- Clinical Pathology Education Ad Hoc Committee Member, Los Angeles County-University of Southern California, 2008-09

Professional and scholarly associations:

- International Society for Extracellular Vesicles, Founding member, 2011-
- Association for Molecular Pathology, 2010-

Editorial services

- *Pharmacogenomics* (Future Science Group publishing), peer reviewer, 9/2014-

Consulting activities

- Clinical consultant (Clinical Validation of BCR-ABL IS MMR Standards), Ipsogen Inc., 04/13/2011-06/30/2011
- Clinical consultant (Clinical Validation of Non-Invasive Prenatal Genomic Testing), Sequenom Inc., 10/01/2010-06/09/2011
- Clinical consultant (Next-Generation Sequencing Panel Development for Hematologic Neoplasms), Illumina Inc., 9/5/2013-

- Physician Consultant, Medical Affairs, Illumina Inc., 1/2014-
- Clinical Consultant, Epic Sciences, 10/2014-
- Clinical Consultant, Qiagen, 4/2015-
- Clinical Consultant, David Wong, DDS Research Group (UCLA School of Dentistry), 6/2015-
- Clinical Consultant, Cytolumina Inc., 9/2015-

Community service

- Hiroshima International Council for Health Care of the Radiation-Exposed (HICARE), U.S. Delegate, 7/2015
- Long Beach Polytechnic High School, "RadPath" advanced elective course (Molecular Pathology session), December 2012
- Long Beach Polytechnic High School, "RadPath" advanced elective course (Molecular Pathology session), December 2011
- Bellefaire Buddies Big Brothers/Big Sisters Foundation, Cleveland, Ohio, USA, 2001-03

HONORS AND SPECIAL AWARDS:

- Clinical Pathology Faramarz Naeim Faculty Teaching Award, UCLA Department of Pathology and Laboratory Medicine, 2012-13
- Golden Apple Faculty Teaching Award, UCLA Intercampus Medical Genetics Training Program, 2012-13
- Phi Beta Kappa
- Summa cum laude, Case Western Reserve University, 1996
- Presidential Scholarship, Case Western Reserve University

RESEARCH GRANTS AND FELLOWSHIPS RECEIVED:

- Daljit S. and Elaine Sarkaria Fellowship for Disease Research and Clinical Innovation, 2012-13
- UCLA Department of Pathology and Laboratory Medicine Internal Grant ("Exosome Cancer Biomarker Discovery"), Principal Investigator, 10/2011-
- National Institutes of Health-Kirschstein National Research Service Award (T32), 2008-2010
- American Heart Association, Cardiovascular Scholars Fellowship for Heart Disease Research, 2001
- American Cancer Society, Joseph S. Silber Fellowship for Cancer Research, 1998

LECTURES AND PRESENTATIONS:

1. Clinical Exome Sequencing as a First-Line Molecular Diagnostic Test for Mendelian Disorders. American Society for Human Genetics Annual Meeting. October 2015, Baltimore, MD.
2. Clinical Exome Sequencing at a Large Academic Medical Center: Diagnostic Yield, Variant Spectrum, and Lessons Learned. 13th International Symposium on Mutation in the Genome: detection, genome sequencing & interpretation. Leiden, Netherlands. April 2015.
3. Current State-of-the-Art in Molecular Testing in Non-Small Cell Lung Cancer, Thoracic Oncology Tumor Board, UCLA David Geffen School of Medicine, Los Angeles, CA. September 19, 2014
4. Current Trends in Prenatal Diagnosis: From Non-Invasive Screening to Invasive Genome-Wide Testing. 3rd Annual Symposium Clinical Applications of Genome-Wide Testing, UCLA David Geffen School of Medicine, Los Angeles, CA. January 2014
5. Utility of Ion Torrent Next-Generation Sequencing for Thyroid Nodule Profiling. Combined Endocrinology Grand Rounds, UCLA David Geffen School of Medicine, Los Angeles, CA. October 2013.

6. An assessment of the prevalence of rare non-synonymous variants within the genes listed in the ACMG Recommendations for Reporting of Incidental Findings in Clinical Exome and Genome Sequencing. *American Sociey for Human Genetics 2013 Annual Meeting*, Boston, MA. October 2013.
7. First year experience of Clinical Exome Sequencing for rare disease diagnosis at UCLA. *American Society for Human Genetics 2013 Annual Meeting*, Boston, MA. October 2013.
8. Molecular Biomarker Testing in Non-Small Cell Lung Cancer (invited panelist/speaker). *Boehringer-Ingelheim Afatanib Launch Meeting*, San Diego, CA. June 2013.
9. Clinical Next Generation Sequencing: Is Confirmation by Sanger Sequencing Really Necessary? *American College of Medical Genetics Annual Meeting*, Phoenix, AZ. March 2013.
10. A Multidisciplinary Approach to Personalizing Medicine for Non-Small Cell Lung Cancer (invited lecture). *ONS 38th Annual Congress Satellite Symposium*, Washington, DC. April 2013.
11. Molecular Pathology of Lung Cancer (invited lecture), *UCLA-Boehringer-Ingelheim Lung Cancer Symposium*, Los Angeles, CA. January, 2013
12. A dinucleotide repeat, (GT)24, located within the 3'-UTR of the microsomal prostaglandin E synthase-1 (PTGES) gene is frequently mutated in microsatellite instability high (MSI-H) colorectal cancers. *Association for Molecular Pathology Annual Meeting*, Long Beach, CA. October 2012.
13. M694V mutation in Armenian-Americans: a ten-year retrospective study of MEFV mutations testing for Familial Mediterranean Fever at UCLA. *American Society for Human Genetics Annual Meeting*, San Francisco, CA. September 2012.
14. Efficient detection of causative mutations for rare diseases: Rethinking clinical practice. *American Society for Human Genetics Annual Meeting*, San Francisco, CA. September 2012.
15. Evaluation of a novel chromogenic agar medium from Biomerieux to screen for vancomycin resistant Enterococcus faecium and faecalis. *American Society for Microbiology 46th Annual International Conference on Antimicrobial Agents and Chemotherapy (ICAAC) Meeting*, San Francisco, CA. September 2006.
16. Color conversion of enzyme metallographic signals: A new ultra sensitive method for chromogenic signal generation. *United States and Canadian Academy of Pathology (USCAP) Annual Meeting*, Atlanta, GA. February 2006.
17. Genotyping of phenotypically defined cells: Enhanced ImmunoFISH Tyramide Signal Amplification (TSA) protects immunophenotypically defined populations for gated genotyping. *United States and Canadian Academy of Pathology (USCAP) Annual Meeting*, Atlanta, GA. February 2006.

(August 12, 2015)
BIBLIOGRAPHY

RESEARCH PAPERS (PEER-REVIEWED):

Published

1. Miller JT, Ge Z, Morris S, Das K, Leis J. Multiple biological roles associated with the Rous sarcoma virus 5' untranslated RNA U5-IR stem and loop. J Virol. 1997 Oct;71(10):7648-56.
2. Das K, Bohl J, Vande Pol SB. Identification of a second transforming function in bovine papillomavirus type 1 E6 and the role of E6 interactions with paxillin, E6BP, and E6AP. J Virol. 2000 Jan;74(2):812-6.
3. Bohl J, Das K, Dasgupta B, Vande Pol SB. Competitive binding to a charged leucine motif represses transformation by a papillomavirus E6 oncoprotein. Virology. 2000 May 25;271(1):163-70.
4. Sizemore N, Agarwal A, Das K, Lerner N, Sulak M, Rani S, Ransohoff R, Shultz D, Stark GR. Inhibitor of kappaB kinase is required to activate a subset of interferon gamma-stimulated genes. Proc Natl Acad Sci U S A. 2004 May 25;101(21):7994-8. Epub 2004 May 17.
5. Agarwal A (co-author), Das K (co-author), Lerner N, Sathe S, Cicek M, Casey G, Sizemore N. The AKT/I kappa B kinase pathway promotes angiogenic/metastatic gene expression in colorectal cancer by activating nuclear factor-kappa B and beta-catenin. Oncogene. 2005 Feb 3;24(6):1021-31.
6. Tubbs RR, Das K, Cook JR, Pettay JD, Roche PC, Grogan T. Genotyping of phenotypically defined cells in neoplasia: enhanced immunoFISH via tyramide signal amplification (TSA) segregates immunophenotypically-defined cell populations for gated genotyping. J Mol Histol. 2007 May;38(2):129-34. Epub 2007 Jan 5.
7. Ledeboer NA, Das K, Eveland M, Roger-Dalbert C, Mailler S, Chatellier S, Dunne WM. Evaluation of a novel chromogenic agar medium for isolation and differentiation of vancomycin-resistant Enterococcus faecium and Enterococcus faecalis isolates. J Clin Microbiol. 2007 May;45(5):1556-60. Epub 2007 Feb 28.
8. Boles R, Das K, Zaki EA. Two common mtDNA polymorphisms are associated with sudden infant death syndrome (SIDS). Mitochondrion. Volume 10, Issue 2, March 2010, Pages 219-220.
9. Ellingson BM, Lai A, Harris RJ, Selfridge JM, Yong WH, Das K, Pope WB, Nghiemphu PL, Vinters HV, Liau LM, Mischel PS, Cloughesy TF. Probabilistic radiographic atlas of glioblastoma phenotypes. AJNR Am J Neuroradiol. 2013 Mar;34(3):533-40. doi: 10.3174/ajnr.A3253. Epub 2012 Sep 20.
10. Ong FS, Vakil H, Xue Y, Kuo JZ, Shah KH, Lee RB, Bernstein KE, Rimoin DL, Getzug T, Das K, Deignan JL, Rotter JI, Grody WW. The M694V mutation in Armenian-Americans: a 10-year retrospective study of MEFV mutation testing for familial Mediterranean fever at UCLA. Clin Genet. 2013 Jul;84(1):55-9. doi: 10.1111/cge.12029. Epub 2012 Nov 7.
11. Sharma S, Das K, Woo J, Gimzewski JK. Nanofilaments on glioblastoma exosomes revealed by peak force microscopy. J R Soc Interface. 2014 Jan 8;11(92):20131150. doi: 10.1098/rsif.2013.1150. Print 2014 Mar 6.
12. Strom SP, Lee H, Das K, Vilain E, Nelson SF, Grody WW, Deignan JL. Assessing the necessity of confirmatory testing for exome-sequencing results in a clinical molecular diagnostic laboratory. Genet Med. 2014 Jul;16(7):510-5. doi: 10.1038/gim.2013.183. Epub 2014 Jan 9.
13. Lee H, Deignan JL, Dorrani N, Strom SP, Kantarci S, Quintero-Rivera F, Das K, Toy T, Harry B, Yourshaw M, Fox M, Fogel BL, Martinez-Agosto JA, Wong DA, Chang VY, Shieh PB, Palmer CG, Dipple KM, Grody WW, Vilain E, Nelson SF. Clinical exome sequencing for genetic identification of rare Mendelian disorders. JAMA. 2014 Nov 12;312(18):1880-7. doi: 10.1001/jama.2014.14604.
14. Cherukuri DP, Deignan JL, Das K, Grody WW, Herschman H. Instability of a dinucleotide repeat in the 3'-untranslated region (UTR) of the microsomal prostaglandin E synthase-1 (mPGES-1) gene in

microsatellite instability-high (MSI-H) colorectal carcinoma. Mol Oncol. 2015 Mar 5. pii: S1574-7891(15)00029-0. doi: 10.1016/j.molonc.2015.01.009. [Epub ahead of print] PMID: 25817443

15. Boles RG, Zaki EA, Kerr JR, Das K, Biswas S, Gardner A. Increased prevalence of two mitochondrial DNA polymorphisms in functional disease: Are we describing different parts of an energy-depleted elephant? Mitochondrion. 2015 Apr 28. pii: S1567-7249(15)00048-3. doi: 10.1016/j.mito.2015.04.005. [Epub ahead of print] PMID: 25934187

In-Press: None

Submitted:

1. Shota Yamamota, Kingshuk Das, Michael Kuo et al. Core needle biopsies in the post-genomic era: beyond histopathology, towards an assessment of 'genomic adequacy'

RESEARCH PAPERS (NON-PEER REVIEWED):

Published: None

In-Press: None

Submitted: None

BOOK CHAPTERS:

Published

1. Das K. Nonhematologic Malignancies, Case 50: A male with confusing hCG results. Tietz's Applied Laboratory Medicine, Second Edition. Editors: Scott MG, Gronowski AM, Eby CS, Tietz NW. 12/2006; John Wiley and Sons: 355-362
2. Ong FS, Grody WW, Das K. Molecular Testing: Regulatory Issues. Molecular Genetic Pathology, Second Edition. Editors: Cheng L, Zhang D, Eble J. 2013; Springer: 1091-1108

In-Press: None

LETTERS TO THE EDITOR:

None

REVIEWS:

1. Ong FS, Deignan JL, Kuo JZ, Bernstein KE, Rotter JI, Grody WW, Das K. Clinical utility of pharmacogenetic biomarkers in cardiovascular therapeutics: a challenge for clinical implementation. Pharmacogenomics. 2012 Mar;13(4):465-75. doi: 10.2217/pgs.12.2.
2. Ong FS, Das K, Wang J, Vakil H, Kuo JZ, Blackwell WL, Lim SW, Goodarzi MO, Bernstein KE, Rotter JI, Grody WW. Personalized medicine and pharmacogenetic biomarkers: progress in molecular oncology testing. Expert Rev Mol Diagn. 2012 Jul;12(6):593-602. doi: 10.1586/erm.12.59.
3. Ong FS, Lin JC, Das K, Grosu DS, Fan JB. Translational utility of next-generation sequencing. Genomics. 2013 Apr 28. doi:pii:S0888-7543(13)00089-X. 10.1016/j.ygeno.2013.04.012.

EDITORIALS:

None

PAPERS IN PREPARATION (RESEARCH COMPLETED):

1. Reshmi Chowdhury, Kingshuk Das. Exosomes and Microvesicles Influence Warburg Effect in Glioblastoma.
2. Invention Disclosure: James K. Gimzewski, Shivani Sharma, Kingshuk Das. MICRO-TENTACLE NANOFILAMENTS FOR FUNCTIONALIZATION OF NANO DELIVERY DRUGS AND BIOLOGICAL ASSAYS. UCLA Case No. 2014-389.

ABSTRACTS:

1. Tubbs RR, Das K, Swain E, Lounsbury R, Cook JR, Pettay JD, Roche PC, Grogan TM. Genotyping of phenotypically defined cells: Enhanced ImmunoFISH Tyramide Signal Amplification (TSA) protects immunophenotypically defined populations for gated genotyping. United States and Canadian Academy of Pathology (USCAP) 2006 Annual Meeting. February 2006, Atlanta, GA.
2. Powell RD, Joshi VN, Hainfeld JF, Das K, Lounsbury R, Pettay J, Tubbs RR, Levenson R. Color conversion of enzyme metallographic signals: A new ultrasensitive method for chromogenic signal generation. United States and Canadian Academy of Pathology (USCAP) 2006 Annual Meeting. February 2006, Atlanta, GA.
3. Ledeboer NA, Das K, Eveland M, Dunne WM. Evaluation of a novel chromogenic agar medium from Biomerieux to screen for vancomycin resistant Enterococcus faecium and faecalis. American Society for Microbiology 46th Annual International Conference on Antimicrobial Agents and Chemotherapy (ICAAC) Meeting. September 2006, San Francisco, CA.
4. Cherukuri D, Deignan JL, Das K, Grody WW, Herschman H. A dinucleotide repeat, (GT)24, located within the 3'-UTR of the microsomal prostaglandin E synthase-1 (PTGES) gene is frequently mutated in microsatellite instability high (MSI-H) colorectal cancers. Associaton for Molecular Pathology 2012 Annual Meeting. October 2012, Long Beach, CA.
5. Lee H, Deignan JL, Das K, Villain E, Grody WW, Nelson S. Efficient detection of causative mutations for rare diseases: Rethinking clinical practice. American Society for Human Genetics Annual Meeting. September 2012, San Francisco, CA.
6. Ong FS, Deignan JL, Rotter J, Bernstein K, Das K, Getzyg T, Kandarp H, Bernstein K, Grody WW. M694V mutation in Armenian-Americans: a ten-year retrospective study of MEFV mutations testing for Familial Mediterranean Fever at UCLA. American Society for Human Genetics Annual Meeting. September 2012, San Francisco, CA.
7. Deignan JL, Strom S, Lee H, Das K, Villain E, Nelson S, Grody WW. Clinical Next Generation Sequencing: Is Confirmation by Sanger Sequencing Really Necessary? American College of Medical Genetics Annual Meeting. March 2013, Phoenix, AZ.
8. Strom S, Lee H, Deignan JL, Das K, Vilain E, Nelson S, Grody WW. An assessment of the prevalence of rare nonsynonymous variants within the genes listed in the ACMG Recommendations for Reporting of Incidental Findings in Clinical Exome and Genome Sequencing. American Society for Human Genetics 2013 Annual Meeting. October 2013, Boston, MA.
9. Lee H, Deignan JL, Dorrani N, Quintero-Rivera F, Kantarci S, Das K, Toy T, Strom S, Baxter R, Hambuch T, Xue Y, Li L, Louie C, Cherukuri D, Lin E, Harry B, Yourshaw M, Fox M, Palmer C, Wong D, Fogel BL, Grody WW, Vilain E, Nelson S. First year experience of Clinical Exome Sequencing for rare disease diagnosis at UCLA. American Society for Human Genetics 2013 Annual Meeting. October 2013, Boston, MA.
10. Wayne W. Grody, Stanley F. Nelson, Joshua L. Deignan, Naghmeh Dorrani, Negar Ghahramani, Jianling Ji, Rena Xian, Sibel Kantarci, Fabiola Quintero-Rivera, Kingshuk Das, Michelle Fox, Eric Vilain, Sam Strom and Hane Lee. Clinical Exome Sequencing at a Large Academic Medical Center: Diagnostic Yield,

Variant Spectrum, and Lessons Learned. 13th International Symposium on Mutation in the Genome: detection, genome sequencing & interpretation. Leiden, Netherlands. April 2015.

11. Hane Lee, Sam Strom, Naghmeh Dorrani, Joshua L. Deignan, Negar Ghahramani, Jianling Ji, Rena Xian, Sibel Kantarci, Fabiola Quintero-Rivera, Kingshuk Das, Eric Vilain, Wayne W. Grody, Stanley F. Nelson. Clinical Exome Sequencing as a First-Line Molecular Diagnostic Test for Mendelian Disorders. American Society for Human Genetics Annual Meeting. October 2015, Baltimore, MD.