



## Katherine Rauen, M.D., Ph.D.

<b>Clinical Interests</b>	<p>Dr. Raun is the attending for both the Biochemical Genetics and Dysmorphology services for UC Davis Health and also supervises medical genetics fellows, rotation residents and medical students. In addition, Dr. Rauen covers consult services for Mercy San Juan and Methodist hospitals while on service and also attends at UC Davis MIND Institute Massie Family Clinic.</p> <p>Dr. Rauen launched the UC Davis NF/Ras Pathway Clinic to provide a multidisciplinary approach to the diagnosis and care of individuals with RASopathies [Neurofibromatosis types 1 and 2, Noonan/LEOPARD, CFC, Costello, Legius syndromes and others], or individuals with a phenotype which is suggestive of a diagnosis in this pathway.</p>
<b>Research/Academic Interests</b>	<p>Dr. Rauen's research focuses on Array CGH, Cardio-Facio-Cutaneous Syndrome, Cancer Genomics, Cancer Syndromes, Clinical Trials, Costello Syndrome, Constitutional Chromosome Aberrations, Cytogenetics, Congenital Abnormalities, Genetic Medicine, Medical Education, Mouse Models, Myogenesis, Myopathy, Neurofibromatosis 1, Noonan Syndrome, Prenatal Genetics, RASopathy, Ras/MAPK Pathway, Small Molecule Inhibitors and Signal Transduction.</p>
<b>Title</b>	<p>Chief, Division of Genomic Medicine Professor, Department of Pediatrics Albert Holmes Rowe Endowed Chair in Human Genetics II</p>
<b>Specialty</b>	<p>Genomics, Genetics, RASopathies</p>
<b>Department</b>	<p><a href="#">Pediatrics</a></p>
<b>Division</b>	<p>Genomic Medicine</p>
<b>Center/Program Affiliation</b>	<p><a href="#">UC Davis Children's Hospital</a> <a href="#">UC Davis MIND Institute</a> <a href="#">Genome Center</a></p>
<b>Address/Phone</b>	<p>UC Davis MIND Institute, 2825 50th St. Sacramento, CA 95817</p>
<b>Additional Phone</b>	<p>Clinic Phone: 916-703-0300 Physician Referrals: 800-4-UCDAVIS (800-482-3284)</p>
<b>Education</b>	<p>M.D., UC Irvine College of Medicine, Irvine CA 1995 Ph.D., Genetics, UC Davis, Davis CA 1992 B.S., Biology, California State University, Bakersfield, Bakersfield CA 1981 M.S. Physiology, UC Davis, Davis CA 1985</p>



## Katherine Rauen, M.D., Ph.D.

**Residency** Pediatrics, UC San Francisco, San Francisco CA 1995-1997

**Fellowships** Medical Genetics, UC San Francisco, San Francisco CA 1997-2000

**Board Certifications** American Board of Medical Genetics  
American Board of Pediatrics

**Professional Memberships** American College of Medical Genetics and Genomics  
American Society of Gene Therapy  
American Society of Human Genetics  
Association of Professors in Human and Medical Genetics  
Society for Pediatric Research  
Western Society for Pediatric Research

**Honors and Awards** Sacramento Magazine Top Doctor, 2016, 2017, 2018, 2019  
Costello Syndrome Family Network Award of Service, 2019  
March of Dimes Service Award, 2017, 2018  
Award of Service RASopahtiesNet, 2017  
Global Genes RARE Champion of Hope Science, 2014  
UC Davis Albert Holmes Rowe Endowed Chair in Human Genetics II, 2014  
Presidential Early Career Awards for Scientists and Engineers (2012), 2013  
Costello Syndrome Family Network Recognition of 10 Years of Service, 2011  
Award of Appreciation - Childrens Tumor Foundation, 2010  
CFC International Award of Appreciation, 2010  
Award of Recognition-UCSF Department of OB/Gyn and Reproductive Sciences, 2009  
NF Inc Go the Extra Mile Award, 2009  
CFC International Award of Service, 2007  
Costello Syndrome Family Network Award of Dedication, 2007  
CFC International Achievement Award for Gene Discovery, 2006

**Select Recent Publications** Castel P, Rauen KA, McCormick F. The duality of human oncoproteins: drivers of cancer and congenital disorders. *Nat Rev Cancer*. 2020 Jul;20(7):383-397. doi:10.1038/s41568-020-0256-z. Epub 2020 Apr 27. PMID:32341551.

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Tidyman WE, Rauen KA. Pathogenetics of the RASopathies. Hum Mol Genet. 2016 Oct 1;25(R2):R123-R132. doi:10.1093/hmg/ddw191. Epub 2016 Jul 12. PMID:27412009.

Tidyman, WE, KA Rauen. Expansion of the RASopathies. Curr Genet Med Rep. 2016 Sep;4(3):57-64. doi:10.1007/s40142-016-0100-7. Epub 2016 Jul 1. PMID:27942422.

Adviento B, Corbin IL, Widjaja F, Desachy G, Enrique N, Rosser T, Risi S, Marco EJ, Hendren RL, Bearden CE, Rauen KA, Weiss LA. Autism traits in the RASopathies. J Med Genet. 2014 Jan;51(1):10-20. doi:10.1136/jmedgenet-2013-101951. Epub 2013 Oct 7. PMID:24101678.

Siegel DH, McKenzie J, Frieden IJ, Rauen KA. Dermatological findings in 61 mutation-positive individuals with cardiofaciocutaneous syndrome. Br J Dermatol. 2011 Mar;164(3):521-9. doi:10.1111/j.1365-2133.2010.10122.x. Epub 2011 Jan 28. PMID:21062266.

Rauen KA, Tidyman WE, Estep AL, Sampath S, Peltier HM, Bale SJ, Lacassie Y. Molecular and functional analysis of a novel MEK2 mutation in cardio-facio-cutaneous syndrome: transmission through four generations. Am J Med Genet A. 2010 Apr;152A(4):807-14. doi:10.1002/ajmg.a.33342. PMID:20358587.

Pierpont ME, Magoulas PL, Adi S, Kavamura MI, Neri G, Noonan J, Pierpont EI, Reinker K, Roberts AE, Shankar S, Sullivan J, Wolford M, Conger B, Santa Cruz M, Rauen KA. Cardio-facio-cutaneous syndrome: clinical features, diagnosis, and management guidelines. Pediatrics. 2014 Oct;134(4):e1149-62. doi:10.1542/peds.2013-3189. Epub 2014 Sep 1. PMID:25180280.

Tidyman WE, Lee HS, Rauen KA. Skeletal muscle pathology in Costello and cardio-facio-cutaneous



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syndromes: developmental consequences of germline Ras/MAPK activation on myogenesis. *Am J Med Genet C Semin Med Genet.* 2011 May 15;157C(2):104-14. doi:10.1002/ajmg.c.30298. Epub 2011 Apr 14. PMID:21495178.

Rauen KA. The RASopathies. *Annu Rev Genomics Hum Genet.* 2013;14:355-69. doi:10.1146/annurev-genom-091212-153523. Epub 2013 Jul 15. PMID:23875798.

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