

Abbreviated Biographical Information:
Dr. Andrew Arnold

Education

Sc.B., Brown University
M.D., Harvard Medical School

Postdoctoral Training

Intern and Resident in Internal Medicine, University of Chicago
Medical Staff Fellow (Molecular Oncology), Metabolism Branch, National Cancer Institute, NIH
Clinical and Research Fellow in Endocrinology, Massachusetts General Hospital

Past Appointments

Assistant & Associate Professor of Medicine, Harvard Medical School
Chief, Laboratory of Endocrine Oncology, Massachusetts General Hospital

Current Appointments at University of Connecticut School of Medicine

Murray-Heilig Chair in Molecular Medicine
Professor of Medicine, Professor of Genetics & Genome Sciences
Chief, Division of Endocrinology and Metabolism
Director, Center for Molecular Oncology and
Chief Academic Officer, Carole and Ray Neag Comprehensive Cancer Center
Director, Office of Physician-Scientist Career Development

Awards and Honors

Elected to American Society for Clinical Investigation
Elected to Association of American Physicians
Fuller Albright Award, American Society for Bone and Mineral Research
Outstanding Investigator Award, American Federation for Medical Research
Outstanding Investigator Award, International Bone and Calcium Institute
Gerald D. Aurbach Award, The Endocrine Society
Louis V. Avioli Founder's Award, American Society for Bone and Mineral Research
Eli Lilly Award Lecture, Canadian Society of Endocrinology and Metabolism
Isadore Rosenberg Lecture, Tufts University School of Medicine
Elected Fellow, American Association for the Advancement of Science
Elected Member, American Clinical and Climatological Association
John Haddad Memorial Lecturer, University of Pennsylvania
Boy Frame Award for Excellence in Clinical Research, American Society for Bone and Mineral Research
International Medal, Society for Endocrinology, United Kingdom
Elected Fellow of the American Society for Bone and Mineral Metabolism
FIRMO Parathyroid Medal, Fondazione Italiana Ricerca sulle Malattie dell'Osso
presented at the 16th International Workshop on Multiple Endocrine Neoplasia, Houston, TX

Selected Appointments/Service

National Council: American Society for Bone and Mineral Research; Association of Program Directors in
Endocrinology & Metabolism; Association of Osteobiology
Scientific Review Panels: NIH, Wellcome Trust, Keck Foundation
Institutional Representative to the American Society for Clinical Investigation
Major Editorships and Editorial Positions: *Journal of Clinical Endocrinology & Metabolism*; *Journal of the
Endocrine Society*; *Endotext.org*; *Endocrine Reviews*, *Endocrinology*; *Clinical & Translational Science*;
Endocrine Society – Annual Meeting Chair; Scientific and Educational Program Committee; Annual
Meeting Steering Committee; Meetings and Educational Programs Committee; Publications Core Committee

American Society for Bone & Mineral Research – Annual Meeting Chair; Annual Meeting Program Committee; Publications Committee; Nominating Committee; Chair, Task Force on Young Investigator Awards; Development Committee; Professional Development Awards Work Group; Chair, Annual Meeting Young Investigator Award Workgroup
 International Workshop on Multiple Endocrine Neoplasia, Parathyroid Carcinoma work group
 International Workshop on Hypoparathyroidism and Primary Hyperparathyroidism, Genetics Task Force Chair, Biomedical Research and Health Care Technical Board, Connecticut Academy of Science and Engineering Executive and Steering Committees, UConn MD/PhD Combined Degree Program
 Mentor: Young Innovative Investigator Program for underrepresented minority students; Group on Women in Medicine and Science, UConn School of Medicine

Selected Publications:

- Arnold A, Cossman J, Bakhshi A, Jaffe ES, Waldmann TA, Korsmeyer SJ. Immunoglobulin gene rearrangements as unique clonal markers in human lymphoid neoplasms. *N Engl J Med* 1983; 309:1593-9.
- Arnold A, Staunton CE, Kim HG, Gaz RD, Kronenberg HM. Monoclonality and abnormal parathyroid hormone genes in parathyroid adenomas. *N Engl J Med* 1988; 318:658-62.
- Arnold A, Kim HG, Gaz RD, Eddy RL, Fukushima Y, Byers MG, Shows TB, Kronenberg HM. Molecular cloning and chromosomal mapping of DNA rearranged with the parathyroid hormone gene in a parathyroid adenoma. *J Clin Invest* 1989; 83:2034-40.
- Arnold A, Horst SA, Gardella TJ, Baba H, Levine MA, Kronenberg HM. Mutation of the signal peptide-encoding region of the preproparathyroid hormone gene in familial isolated hypoparathyroidism. *J Clin Invest* 1990; 86:1084-7.
- Nussbaum SR, Gaz RD, Arnold A. Hypercalcemia and ectopic secretion of parathyroid hormone by an ovarian carcinoma with rearrangement of the gene for parathyroid hormone *N Engl J Med* 1990; 323:1324-8.
- Motokura T, Bloom T, Kim HG, Jüppner H, Ruderman JV, Kronenberg HM, Arnold A. A novel cyclin encoded by a BCL1-linked candidate oncogene. *Nature* 1991; 350:512-5.
- Rosenberg CL, Wong E, Petty EM, Bale AE, Tsujimoto Y, Harris NL, Arnold A. PRAD1, a candidate BCL1 oncogene: mapping and expression in centrocytic lymphoma. *Proc Natl Acad Sci* 1991; 88:9638-42.
- Hinds PW, Mittnacht S, Dulic V, Arnold A, Reed SI, Weinberg RA. Regulation of retinoblastoma protein functions by ectopic expression of human cyclins. *Cell* 1992; 70:993-1006.
- Dowdy SF, Hinds PW, Louie K, Reed SI, Arnold A, Weinberg RA. Physical interaction of the retinoblastoma protein with human D cyclins. *Cell* 1993; 73:499-511.
- Williams ME, Swerdlow SH, Rosenberg CL, Arnold A. Chromosome 11 translocation breakpoints at the PRAD1/cyclin D1 gene locus in centrocytic lymphoma. *Leukemia* 1993; 7:241-5.
- Cryns VL, Thor A, Xu H-J, Hu S-X, Wierman ME, Vickery AL, Benedict WF, Arnold A. Loss of the retinoblastoma tumor suppressor gene in parathyroid carcinoma. *N Engl J Med* 1994; 330:757-61.
- Hinds PW, Dowdy SF, Eaton EN, Arnold A, Weinberg RA. Function of a human cyclin gene as an oncogene. *Proc Natl Acad Sci USA* 1994; 91:709-13.

- Wang TC, Cardiff RD, Zukerberg L, Lees E, Arnold A, Schmidt EV. Mammary hyperplasia and carcinoma in MMTV-cyclin D1 transgenic mice. *Nature* 1994; 369:669-71.
- Arnold A, Brown MF, Ureña P, Gaz RD, Sarfati E, Drüeke TB. Monoclonality of parathyroid tumors in chronic renal failure and in primary parathyroid hyperplasia. *J Clin Invest* 1995; 95:2047-53.
- Chung DC, Smith AP, Louis DN, Graeme-Cook F, Warshaw AL, Arnold A. A novel pancreatic endocrine tumor suppressor gene locus on chromosome 3p with clinical prognostic implications. *J Clin Invest* 1997; 100:404-410.
- Oyama T, Kashiwabara K, Yoshimoto K, Arnold A, Koerner F. Frequent overexpression of the cyclin D1 oncogene in invasive lobular carcinoma of the breast. *Cancer Res* 1998; 58:2876-80.
- Imanishi Y, Hosokawa Y, Yoshimoto K, Schipani E, Mallya S, Papanikolaou A, Kifor O, Tokura T, Sablosky M, Ledgard F, Gronowicz G, Wang TC, Schmidt EV, Hall C, Brown EM, Bronson R, Arnold A. Primary hyperparathyroidism caused by parathyroid-targeted overexpression of cyclin D1 in transgenic mice. *J Clin Invest* 2001; 107:1093-1102.
- Shattuck TM, Välimäki S, Obara T, Gaz RD, Clark OH, Shoback D, Wierman ME, Tojo K, Robbins CM, Carpten JD, Farnebo L-O, Larsson C, Arnold A. Somatic and germline mutations of the *HRPT2* gene in sporadic parathyroid carcinoma. *N Engl J Med* 2003; 349:1722-9.
- Shattuck TM, Westra WH, Ladenson PW, Arnold A. Independent clonal origins of distinct tumor foci in multifocal papillary thyroid carcinoma. *N Engl J Med* 2005; 352:2406-12.
- Mallya SM, Gallagher JJ, Wild YK, Kifor O, Costa-Guda J, Saucier K, Brown EM, Arnold A. Abnormal parathyroid cell proliferation precedes biochemical abnormalities in a mouse model of primary hyperparathyroidism. *Mol Endocrinol* 2005; 19:2603-9.
- Bilezikian JP, Khan AA, Potts JT Jr, Arnold A, Brandi ML, Brown E, Bouillon R, Camacho P, Clark O, D'Amour P, Eastell R, Goltzman D, Hanley DA, Lewiecki EM, Marx S, Mosekilde L, Pasiaka JL, Peacock M, Rao D, Reid IR, Rubin M, Shoback D, Silverberg S, Sturgeon C, Udelsman R, Young JE. Guidelines for the management of asymptomatic primary hyperparathyroidism: summary statement from the third international workshop. *J Clin Endocrinol Metab* 2009; 94:335-9.
- Costa-Guda J, Marinoni I, Molatore S, Pellegata NS, Arnold A. Somatic mutation and germline sequence abnormalities in *CDKN1B*, encoding p27Kip1, in sporadic parathyroid adenomas. *J Clin Endocrinol Metab* 2011; 96:E701-6.
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- Costa-Guda J, Imanishi Y, Palanisamy N, Kawamata N, Koeffler P, Chaganti RSK, Arnold A. Allelic imbalance in sporadic parathyroid carcinoma and evidence for its *de novo* origins. *Endocrine* 2013; 44:489-95.
- Costa-Guda J, Soong C-P, Parekh VI, Agarwal SK, Arnold A. Germline and somatic mutations in cyclin-dependent kinase inhibitor genes *CDKN1A*, *CDKN2B*, and *CDKN2C* in sporadic parathyroid adenomas. *Horm Cancer* 2013; 4:301-7.
- Soong C-P, Arnold A. Recurrent ZFX mutations in human sporadic parathyroid adenomas. *Oncoscience* 2014; 1:360-6.

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- Corrado KR, Andrade SC, Bellizzi J, D'Souza-Li L, Arnold A. Polyclonality of parathyroid tumors in neonatal severe hyperparathyroidism. *J Bone Miner Res* 2015; 30:1797-802.
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- Costa-Guda J, Pandya C, Strahl M, Taik P, Sebra R, Chen R, Uzilov AV, Arnold A. Parafibromin abnormalities in ossifying fibroma. *J Endocr Soc* 2021; 5: bvab087.
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