

**ANTONIO BALDINI, M.D.**

**ADDRESS**

Dept. of Molecular Medicine and Medical Biotechnologies  
University Federico II, Napoli.  
antonio.baldini@unina.it  
<https://www.docenti.unina.it/Antonio.Baldini>

**EDUCATION**

1987 **Specialization (board) in Pediatrics.** University 'La Sapienza', Rome, Italy.  
1983 **Medical Doctor degree,** University 'La Sapienza', Rome.

**CURRENT POSITION**

2003 – **Full Professor** (*Professore Ordinario*, tenured) of Molecular Biology, Dept. of Molecular Medicine and Medical Biotechnologies, University Federico II, Naples, Italy.

**OTHER AND PREVIOUS APPOINTMENTS AND TRAINING**

2019-2020 **Visiting Professor**, Stanford University Medical School, Dept. of Pediatrics, Stanford, USA.  
2012-2014 **Visiting Professor**, Shanghai Children's Medical Center, Shanghai Jiaotong University, Shanghai, China.  
2008-2013 **Director** (5yr term), Institute of Genetics and Biophysics, National Research Council (CNR), Naples, Italy.  
2006-2010 **Visiting Research Scientist**, Institute of Biosciences and Technology, Texas A&M Univ. HSC, Houston, TX, USA.  
2003-2006 **Full Professor** (tenured), Dept. of Pediatrics, Division of Cardiology, and Dept. of Molecular and Human Genetics, Baylor College of Medicine, Houston, TX.  
1999-2003 **Associate Professor** (tenured), Dept. of Pediatrics, Division of Cardiology, and Dept. of Mol. and Hum. Genetics, Baylor College of Medicine.  
1992-1999 **Assistant Professor**, Dept. of Molecular & Human Genetics, Baylor College of Medicine.  
1991-1992 **Research Scientist**, Italian National Research Council (CNR) and Visiting Investigator, Imperial Cancer Research Fund, London, UK.  
1990-1991 **Postdoctoral Associate**, Yale University School of Medicine, Dept. of Human Genetics, New Haven, CT, USA (Mentor Dr. David C. Ward).  
1987-1989 **Postdoctoral Associate**, Department of Molecular Biology and Genetics, Wayne State University School of Medicine, Detroit, MI, USA (Mentors Drs. Dorothy A. Miller and Orlando J. Miller).  
1983-1987 **Pediatrics residency.** University 'La Sapienza', Rome, Italy.

**SCIENTIFIC EVALUATION ACTIVITY**

Ad hoc reviewer for the following Journals: Nature, Nature Genetics, Elife, Lancet, Development, Nature Biotechnology, Developmental Biology, Genes and Development, Circulation, Circulation Research, Human Molecular Genetics, Proceedings of the National Academy of Sciences, USA, American Journal of Human Genetics, Genome Research, Genomics, Gene, Clinical Genetics, American Journal of Medical Genetics, Human Genetics, European Journal of Human Genetics, Trends in Genetics, PLoS Genetics, PLoS Biology, J. Cell Biology, PLoS One.

-Member of a Site Visit Reviewing Panel for the Department of Energy (UCSF, 1993)

-Member of a Site Visit Reviewing Panel for the National Cancer Institute (F. Hutchinson Cancer Research Center, Seattle, 1995).

- Study Section Oral Biology and Medicine 2 (OBM-2), NIH (Bethesda, 1997, 1998).

-Study Section Heart development, Molecular Genetics and Immunology. American Heart Association, Western States/Texas Affiliate (1999-2003).

- Study Section BIOL-1, NIH (Washington DC, 2000).

- Special Study Sections for program project review, NHLBI, NIH (Bethesda, MD, 2001, 2003).
- The Wellcome Trust, UK (2001).
- Department of Health and Human Services, Food and Drug Administration (FDA) (Orphan Products Development Grant Program, 2004).
- Study Section GHD (Genetics of Health and Disease) NIH (Bethesda, 2004).
- Study Section CDD (Cardiovascular Development and Disease) NIH, Washington, DC (2007).
- Peer review committee, CARIPLO Foundation (2003-2006).
- The European Mouse Mutant Archive (EMMA) Evaluation Committee (2008-to date).
- ANVUR (Italian National University and Research Evaluation System), external reviewer (2012-to 2014)
- Evaluation Committee, Cardiovascular Sciences, Academia Sinica, Taipei, Taiwan (2013).
- Scientific Advisory Board of the "DiGeorge Program", Division of Stem Cell Transplantation and Regenerative Medicine, Dept. of Pediatrics, Stanford University, Stanford, CA, USA (2017-to date).
- Editorial Boards:
  - Journal of Cardiovascular Development and Disease* (ISSN 2308-3425).
  - Cardiogenetics* (ISSN 2035-8148).
  - International Journal of Molecular Sciences* (IJMS) "Molecular Genetics and Genomics" Section (ISSN 1422-0067).
- Member National Committee for Scientific Abilitation (ASN) to University positions in Molecular Biology (2021-2023) for the Italian Ministry of University and Research.

#### HONORS

- 2002- "Chiara Fama" Chair from the Italian Ministry of Research and University (for academics who distinguished themselves abroad).
- 2015-2020 Elected member and Treasurer, European Society of Cardiology, Development and Pathology Nucleus.
- 2019- Elected Member of the Academia Europaea.

#### MENTORSHIP ACTIVITY

During the last 10 years I have graduated 10 PhD students and trained more than 20 post-docs. Currently, my lab has 3 staff research scientists, 3 post-docs, 3 students and 2 lab technicians. Most of my former trainees in the US have moved on to post-doc positions to prestigious Institutions (e.g. Harvard, NIH, Texas Heart Institute, and others) and to Faculty positions in the US, Europe or China. Most of them have staid in Academia.

#### RESEARCH INTERESTS

- Tbx1 functions in cardiovascular and pharyngeal development.
- Biology of cardiomyocyte progenitors and congenital heart disease.
- Pathogenetic mechanisms in 22q11.2DS/DiGeorge syndrome.
- Genetic and drug-based rescue of the mutant phenotype in DiGeorge syndrome mouse models.

#### TEACHING ACTIVITY (Current)

Course in Molecular Biology (basic course for Medical and Dental School).  
Course in Genomics and Transcriptomics (Advanced for Pharmaceutical Biotechnology Master degree).

#### PATENTS

- US Patent number 6,203,977, granted March 20, 2001: "Diagnosis of Genetic and Malignant Diseases Using Chromosome Specific DNA Probes, Multiple Fluorochromes and Optical Imaging Systems". Licensed to industry, used for diagnostic kits.

#### RESEARCH FUNDING

Past (main grants):

- NIH** 5R01-HL051524 P.I., "Molecular Cytogenetics of Congenital Heart Malformations" (continuously funded from 1995 to 2009) (Total approx 2,500,000.00 USD).
- NIH** 5R01-HL064832 P.I., "Identification and Characterization of Genes from del22q11 Involved in Heart Development" (continuously funded from 2000 to 2010) (Total approx. 2,000,000.00 USD).
- NIH** 1R01 DC006248 P.I., "Tbx1 Functions in Ear Development" (2003-2008) (Total approx. 750,000.00 USD).
- NIH** PO1-HL67155 (program project, project leader) "A Genetic Pathway Required for Normal Aortic Arch Development". (2001-2006) (Total approx. 875,000.00 USD).
- EU-FP7**: CardioGeNet Program (P.I. and Coordinator) 2009-2013: "Definition of a genetic network involved in congenital heart disease" (Approx. 2,500,000.00 euros).
- Italian **Ministry of Research** (National Program, Research and Development, joint program academia-industry), 2011-2015. Scientific Coordinator. "Regenerative medicine and tissue engineering: Novel approaches to damaged tissue repair". (approx 1,100,000.00 euros assigned to P.I. unit).
- **Telethon** Foundation (P.I.), 2015-2018: "Phenotypic rescue of the DiGeorge syndrome phenotype in mouse models" (€341,600.00).
- **AIRC** (Italian Association for Cancer Research), P.I. "p53-Tbx1 interaction in development and cell differentiation". 02/01/2016 - 01/05/2019, total funded: € 228,000.00.

#### Current

- **Fondation LEDUCQ** (European Coordinator, Transatlantic network of Research Excellence in Cardiovascular Sciences) 01/01/2016 - 31/12/2020, extended to 31/12/2021: "22q11.2 deletion syndrome: Novel approaches to understand cardiopharyngeal pathogenesis", approx. \$900,000.00 for the Unit.
- PRIN-MIUR** (Italian Ministry of University and Research), P.I. and Coordinator. 2019-2023. "Unraveling cardiac progenitor biology: in vivo mechanistic insights and significance for congenital heart disease". Tot €654000.

#### SELECTED PUBLICATIONS

General bibliometry (Google Scholar, April 2021):

H-index: 63; Total citations: 15598.

<http://scholar.google.it/citations?user=uTdiavQAAAAJ>

ORCID 0000-0002-5330-0256



- 191)** Favicchia I, Flore G, Cioffi S, Lania G, **Baldini A**, Illingworth E. Pharmacological rescue of the brain cortex phenotype of *Tbx1* mouse mutants: significance for 22q11.2 deletion syndrome. *Frontiers in Molecular Neuroscience*, 2021 (epub DOI=10.3389/fnmol.2021.663598)
- 190)** Caprio C, Lania G, Bilio M, Ferrentino R, Chen L, **Baldini A**. EZH2 is required for parathyroid and thymic development through differentiation of the third pharyngeal pouch endoderm. *Dis Model Mech*. 2021, doi: 10.1242/dmm.046789
- 189)** Wei L, Wang W, Yang J, Huang X, **Baldini A**, Zhang, Z. Pharyngeal epithelial deletion of *Tbx1* causes caudal pharyngeal arch defect but not cardiac conotruncal anomaly. *Biochemical Biophysical Res. Comm*. 2020, epub ahead of print. <https://doi.org/10.1016/j.bbrc.2020.10.011>
- 188)** Martucciello S, Turturo MG, Bilio M, Cioffi S, Chen L, **Baldini A**, Illingworth E. A dual role for *Tbx1* in cardiac lymphangiogenesis through genetic interaction with *Vegfr3*. *FASEB J*. 2020 Sep 20. doi: 10.1096/fj.201902202R.
- 187)** Cirino A, Aurigemma I, Franzese M, Lania G, Righelli D, Ferrentino R, Illingworth I, Angelini C, **Baldini A**. Chromatin and transcriptional response to loss of *TBX1* in early differentiation of mouse cells. *Front Cell Dev Biol*. 2020 8:571501. <https://doi.org/10.3389/fcell.2020.571501>
- 186)** Caprio C, Varricchio S, Bilio M, Feo F, Ferrentino R, Russo D, Staibano S, Alfano D, Missero C, Ilardi G, **Baldini A**. *TBX1* and Basal Cell Carcinoma: Expression and Interactions with *Gli2* and *Dvl2* Signaling. *International Journal of Molecular Sciences*, 21:607 (2020). doi:10.3390/ijms21020607

- 185)** Adachi N, Bilio M, **Baldini A**, Kelly RG. Cardiopharyngeal mesoderm origins of musculoskeletal and connective tissues in the mammalian pharynx. *Development* Feb 3, 147, 2020. doi: 10.1242/dev.185256
- 184)** Mastromoro G, Calcagni G, Versacci P, Putotto C, Chinali M, Lambiase C, Unolt M, Pelliccione E, Anaclerio S, Caprio C, Cioffi S, Bilio M, Baban A, Drago F, Digilio MC, Marino B, **Baldini A**. Left Pulmonary Artery in 22q11.2 deletion syndrome. Echocardiographic evaluation in patients without cardiac defects and role of *Tbx1* in mice. *PLoS One* 14:e0211170 (2019). doi: 10.1371/journal.pone.0211170
- 183)** Alfano D, Altomonte A, Cortes C, Bilio M, Kelly RG, **Baldini A**. *Tbx1* regulates extracellular matrix- and cell-cell interactions in the second heart field. *Human Molecular Genetics*, 28:2295-2308 (2019). doi: 10.1093/hmg/ddz058
- 182)** Moreau JLM, Kesteven S, Martin EMMA, Lau KS, Yam MX, O'Reilly VC, del Monte-Nieto G, **Baldini A**, Feneley MP, Moon AM, Harvey RP, Sparrow DB, Chapman G, Dunwoodie SL. Gene-environment interaction impacts on heart development and embryo survival. *Development* 146 (2019). doi: 10.1242/dev.172957
- 181)** Fulcoli GF, **Baldini A**. Transcriptional regulation of early cardiovascular development. *The European Society of Cardiology Textbook of Cardiovascular Development*, Editors J. M. Perez Pomares & R.G. Kelly (chapter 6), 2018.
- 180)** Pane LS, Fulcoli GF, Cirino A, Altomonte A, Ferrentino R, Bilio M, **Baldini A**. *Tbx1* represses *Mef2c* gene expression and is correlated with histone 3 deacetylation of the anterior heart field enhancer. *Dis Model Mech*. 11 (9). doi:10.1242/dmm.029967 (2018).
- 179)** Calcagni G, Unolt M, Digilio MC, Baban A, Versacci P, Tartaglia M, **Baldini A**, Marino B. Congenital heart disease and genetic syndromes: new insights into molecular mechanisms. *Expert Rev Mol Diagn*. 9:861-870 (2017).
- 178)** **Baldini A**, Fulcoli FG, Illingworth E. *Tbx1*: Transcriptional and Developmental Functions. *Current Topics in Developmental Biology* 122:223-243 (2017).
- 177)** Lania G, Bresciani A, Bisocchi M, Francone A, Colonna V, Altamura S, **Baldini A**. Vitamin B12 ameliorates the phenotype of a mouse model of DiGeorge syndrome. *Hum. Mol. Genet*. 25:4369-4375 (2016).
- 176)** Fulcoli G, Franzese M, Liu X, Zhang Z, Angelini C, **Baldini A**. Rebalancing gene haploinsufficiency in vivo by targeting chromatin. *Nature Comm*. 7:11688 (2016). <http://dx.doi.org/10.1038/ncomms11688>
- 175)** Théveniau-Ruissy M, Pérez-Pomares JM, Parisot P, **Baldini A**, Miquerol L, Kelly RG. Coronary stem development in wildtype and *Tbx1* null mouse hearts. *Dev. Dyn*. 245:445-459, 2015.
- 174)** Lania G, Ferrentino R, **Baldini A**. *TBX1* represses *Vegfr2* gene expression and enhances the cardiac fate of *VEGFR2+* cells. *PLoS ONE*, 10:e0138525, 2015.
- 173)** Gao S, Moreno M, Eliason S, Cao H, Li X, Yu W, Bidlack FB, Margolis HC, **Baldini A**, Amendt BA. *TBX1* protein interactions and microRNA-96-5p regulation controls cell proliferation during craniofacial and dental development: implications for 22q11.2 deletion syndrome. *Hum Mol Genet*. 24:2330-48, 2015.
- 172)** Fuchs JC, Linden JF, **Baldini A**, Tucker AS. A defect in early myogenesis causes Otitis media in two mouse models of 22q11.2 deletion syndrome. *Hum Mol Genet*. 24:1869-82, 2015.
- 171)** Caprio C, **Baldini A**: p53 suppression partially rescues the mutant phenotype in mouse models of DiGeorge syndrome. *Proc Natl Acad Sci U S A*. 111:13385-90, 2014.
- 170)** Freyer L, Nowotschin S, Pirty MK, **Baldini A**, Morrow BE. Conditional and constitutive expression of a *Tbx1*-GFP fusion protein in mice. *BMC Dev Biol*. Aug 23;13(1):33, 2013
- 169)** Tian X, Hu T, Zhang H, He L, Huang X, Liu Q, Yu W, He L, Yang Z, Zhang Z, Zhong T, Yang X, Yang Z, Yan Y, **Baldini A**, Sun Y, Lu J, Schwartz RJ, Evans SM, Gittenberger-de Groot AC, Red-Horse K, Zhou B. Subepicardial endothelial cells invade the embryonic ventricle wall to form coronary arteries. *Cell Res* 23:1075-90, 2013.
- 168)** Kosaka Y, Cieslik KA, Li L, Lezin G, Maguire CT, Saijoh Y, Toyo-Oka K, Gambello MJ, Vatta M, Wynshaw-Boris A, **Baldini A**, Yost HJ, Brunelli L. 14-3-3 $\epsilon$  Plays a Role in Cardiac Ventricular Compaction by Regulating the Cardiomyocyte Cell Cycle. *Mol Cell Biol*. 32:5089-5102, 2012.

- 167) Pane LS, Zhang Z, Ferrentino R, Huynh T, Cutillo L, **Baldini A**. Tbx1 is a negative modulator of Mef2c. *Hum. Mol. Genet.* 21:2485-96, 2012.
- 166) Chen L, Fulcoli FG, Ferrentino R, Martucciello S, Illingworth E, **Baldini A**. Transcriptional Control in Cardiac Progenitors: Tbx1 interacts with the BAF chromatin remodeling complex and regulates *Wnt5a*. *PLoS Genetics*, 8:e1002571, 2012.
- 165) Liu C, Belichenko PV, Zhang L, Fu D, Kleschevnikov AM, **Baldini A**, Antonarakis SE, Mobley WC, Yu YE. Mouse Models for Down Syndrome-Associated Developmental Cognitive Disabilities. *Dev Neurosci.* 33:404-13, 2011.
- 164) Liu C, Morishima M, Yu T, Matsui SI, Zhang L, Fu D, Pao A, Costa AC, Gardiner KJ, Cowell JK, Nowak NJ, Parmacek MS, Liang P, **Baldini A**, Yu YE. Genetic analysis of Down syndrome-associated heart defects in mice. *Hum Genet* 130:623-32, 2011.
- 163) Yu T, Liu C, Belichenko P, Clapcote SJ, Li S, Pao A, Kleschevnikov A, Bechard AR, Asrar S, Chen R, Fan N, Zhou Z, Jia Z, Chen C, Roder JC, Liu B, **Baldini A**, Mobley WC, Yu YE. Effects of individual segmental trisomies of human chromosome 21 syntenic regions on hippocampal long-term potentiation and cognitive behaviors in mice. *Brain Res* 1366:162-71, 2010.
- 162) Zhang Z, **Baldini A**. Manipulation of endogenous regulatory elements and transgenic analyses of the *Tbx1* gene. *Mammalian Genome* 21:556-564, 2010.
- 161) Cao H, Florez S, Amen M, Huynh T, Skobe Z, **Baldini A**, Amendt BA. Tbx1 Regulates Progenitor Cell Proliferation in the Dental Epithelium by Modulating PITX2 Activation of p21. *Dev Biology* 347:289-300, 2010.
- 160) Vitelli F, Lania G, Huynh T, **Baldini A**. Partial Rescue of the *Tbx1* mutant Heart Phenotype by Fgf8: genetic evidence of impaired tissue response to Fgf8. *J. Mol. Cell. Cardiol.* 49:836-840, 2010.
- 159) Yu T, Clapcote SJ, Li Z, Liu C, Pao A, Bechard AR, Carattini-Rivera S, Matsui S, Roder JC, **Baldini A**, Mobley WC, Bradley A, Yu YE. Deficiencies in the region syntenic to human 21q22.3 cause cognitive deficits in mice. *Mamm Genome* 21:258-267, 2010.
- 158) Chen L, Mupo A, Huynh T, Cioffi S, Woods M, Jin C, McKeehan W, Thompson-Snipes L, **Baldini A**, Illingworth E. Tbx1 regulates *Vegfr3* and is required for lymphatic vessel development. *Journal of Cell Biology* 189:417-424, 2010.
- 157) Chen L, Fulcoli FG, Tang S, **Baldini A**. Tbx1 Regulates Proliferation and Differentiation of Multipotent Heart Progenitors. *Circulation Research* 105:842-851, 2009
- 156) Lania G, Zhang Z, Huynh T, Caprio C, Moon AM, Vitelli F, **Baldini A**. Early thyroid development requires a Tbx1-Fgf8 pathway. *Dev. Biol.* 328:109-117, 2009.
- 155) Caterino M, Ruoppolo M, Fulcoli G, Huynh T, Orrù S, **Baldini A**, Salvatore F. Transcription factor TBX1 overexpression induces downregulation of proteins involved in retinoic acid metabolism: A comparative proteomic analysis. *Journal of Proteome Research*, 8:1515-1526, 2009.
- 154) Vitelli F, Huynh T, **Baldini A**. Gain of function of Tbx1 affects pharyngeal and heart development in the mouse. *Genesis* 47:188-195, 2009.
- 153) Zhang Z, **Baldini A**. In vivo response to high-resolution variation of *Tbx1* mRNA dosage. *Hum. Mol. Genet.* 17:150-157, 2008.
- 152) Pavone LM, Mithbaokar P, Mastellone V, Avallone L, Gaspar P, Maharajan V, **Baldini A**. Fate map of serotonin transporter (*SERT*)- expressing cells in developing mouse heart. *Genesis*, 45:689-695, 2007.
- 151) Xu H, Chen L, **Baldini A**. In vivo genetic ablation of the periotic mesoderm affects cell proliferation survival and differentiation in the cochlea. *Dev. Biol.* 310:329-340, 2007.
- 150) Huynh T, Chen L, Terrell P, **Baldini A**. A fate map of *Tbx1* expressing cells reveals heterogeneity in the second cardiac field. *Genesis* 45:470-5, 2007.
- 149) Ai D, Fu X, Wang J, Lu M-F, Chen L, **Baldini A**, Klein WH, Martin JF. Canonical Wnt signaling functions in second heart field to promote right ventricular growth. *PNAS* 104:9319-24, 2007.
- 148) Brunelli L, Cieslik AK, Alcorn JL, Vatta M, and **Baldini A**. PPAR $\delta$  up-regulates 14-3-3 $\epsilon$  in human endothelial cells via C/Ebp $\beta$ . *Circ. Res.* 100:e59-71, 2007.
- 147) **Baldini A**. The 22q11.2 deletion syndrome: a gene dosage perspective. *TheScientificWorldJournal* 6:1881-7, 2006
- 146) Dong F, Sun X, Liu W, Ai D, Klysik E, Lu M-F, Hadley J, Antoni L, Chen L, **Baldini A**, Francis-

West P, Martin JF. *Pitx2* promotes development of splanchnic mesoderm-derived branchiomeric muscle. *Development* 133:4891-9, 2006.

**145)** Dastjerdi A, Robson L, Walker R, Hadley J, Zhang Z, Rodriguez-Niedenführ M, Ataliotis P, **Baldini A**, Scambler PJ, Francis-West P. *Tbx1* regulation of myogenic differentiation in the limb and cranial mesoderm. *Dev Dyn*. 236:353-63, 2007.

**144)** Xu H, **Baldini A**. Genetic pathways to mammalian heart development: Recent progress from manipulation of the mouse genome. *Semin Cell Dev Biol*. 18:77-83, 2007.

**143)** Roberts C, Ivins S, Cook AC, **Baldini A**, Scambler PJ. *Cyp26* genes *a1*, *b1* and *c1* are down-regulated in *Tbx1* null mice and inhibition of *Cyp26* enzyme function produces a phenocopy of DiGeorge Syndrome in the chick. *Hum. Mol. Genet*. 15:3394-410, 2006.

**142)** Xu H, Viola A, Zhang Z, Gerken CP, Lindsay-illingworth EA, **Baldini A**. *Tbx1* regulates population, proliferation and cell fate determination of otic epithelial cells. *Dev. Biol*. 302:670-682, 2007.

**141)** Xie M, Zhang D, Dyck JRB, Li Y, Zhang H, Morishima M, Mann DL, Taffet GE, **Baldini A**, Khoury DS, Schneider MD. A pivotal role for endogenous TAK1 in the LKB1/AMPK energy-sensor pathway. *Proc Natl Acad Sci USA*, 103:17378-83. 2006.

**140)** Zhang Z, Huynh T, **Baldini A**. Mesodermal expression of *Tbx1* is necessary and sufficient for pharyngeal arch and cardiac outflow tract development. *Development* 133: 3587-3595, 2006.

**139)** Vitelli F, Zhang Z, Huynh T, Sobotka A, Mupo A, **Baldini A**. *Fgf8* expression in the *Tbx1* domain causes skeletal abnormalities and modifies the aortic arch but not the outflow tract phenotype of *Tbx1* mutants. *Dev Biol*, 295:559-570, 2006.

**138)** Yu YE, Morishima M, Pao A, **Baldini A**, Bradley A. A deficiency in the region homologous to human 17q21.33q23.2 causes heart defects in mice. *Genetics* 173:297-307 2006.

**137)** Zhang Z, Cerrato F, Xu H, Vitelli F, Morishima M, Vincentz J, Furuta Y, Ma L, Martin J, **Baldini A**, Lindsay EA. *Tbx1* expression in pharyngeal epithelia is necessary for pharyngeal arch artery development. *Development* 132:5307-5315, 2005.

**136)** Xu H, Cerrato F, **Baldini A**. Timed mutation and cell fate mapping reveal reiterated roles of *Tbx1* during embryogenesis and a crucial function during segmentation of the pharyngeal system via regulation of endoderm expansion. *Development* 132:4387-4395, 2005.

**135)** Ivins S, Lammerts van Beuren K, Roberts C, James C, Lindsay EA, **Baldini A**, Ataliotis, P, Scambler PJ. Microarray analysis detects differentially expressed genes in the pharyngeal region of mice lacking *Tbx1*. *Dev Biol* 285:554-569, 2005.

**134)** **Baldini A**. Dissecting contiguous gene defects: *TBX1*. *Curr Opin Genet Dev* 15:279-284, 2005.

**133)** Prescott K, Ivins S, Hubank M, Lindsay EA, **Baldini A**, Scambler P. Microarray analysis of the *Df1* mouse model of the 22q11 Deletion Syndrome. *Hum Genet* 116:486-496, 2005.

**132)** Vincentz JW, Murre C, **Baldini A**, Furuta Y. *Fgf15* is required for proper morphogenesis of the murine cardiac outflow tract. *Genesis* 41:192-201, 2005.

**131)** **Baldini A**. Hypoparathyroidism in DiGeorge Syndrome. *Clinical Cases in Mineral Bone and Metabolism* 1:103-105, 2004.

**130)** **Baldini A**. DiGeorge Syndrome: an update. *Curr Op Cardiol* 19:201-204, 2004.

**129)** Xu H, Morishima M, Wylie JN, Schwartz RJ, Bruneau BG, Lindsay EA, **Baldini A**. *Tbx1* has a dual role in the morphogenesis of the cardiac outflow tract. *Development* 131:3217-3227, 2004.

**128)** **Baldini A**. DiGeorge Syndrome: A gene at last. *Lancet* 362:1342-1343, 2003.

**127)** Vitelli F, **Baldini A**. Generating and modifying DiGeorge syndrome-like phenotypes in model organisms: is there a common genetic pathway? *Trends in Genetics*, 19:588-593, 2003.

**126)** Vitelli F, Viola A, Pramparo T, **Baldini A**, Lindsay EA. *Tbx1* is required for inner ear morphogenesis. *Hum. Mol. Genet*. 12:2041-2048, 2003.

**125)** Morishima M, Yanagisawa H, Yanagisawa M, **Baldini A**. *Ece1* and *Tbx1* define distinct pathways to aortic arch morphogenesis. *Dev. Dyn*. 228:95-104, 2003.

**124)** Xu H, Morishima M, **Baldini A**. *Tbx1* and DiGeorge Syndrome: A genetic link between Cardiovascular and Pharyngeal Development. *Etiology and Morphogenesis of Congenital Cardiovascular Disease* (Eds. Nakazawa, Clarck, Takao), 2006.

- 123)** Vitelli F, Lindsay EA, **Baldini A.** Genetic Dissection of the DiGeorge Syndrome phenotype. *Cold Spring Harb. Symp. Quantitat. Biol.* Vol. LXVII: 327-332, 2002.
- 122) Baldini A.** DiGeorge Syndrome: The use of model organisms to dissect complex genetics. *Hum. Mol. Genet.* 11:2363-2369, 2002.
- 121)** Vitelli F, Taddei I, Morishima M, Meyers EN, Lindsay EA, **Baldini A.** A genetic link between *Tbx1* and Fibroblast Growth Factor Signaling. *Development* 129: 4605-4611, 2002.
- 120)** Vitelli F, Morishima M, Taddei I, Lindsay EA, **Baldini A.** *Tbx1* Mutation Causes Multiple Cardiovascular Defects and Disrupts Neural Crest and Cranial Nerve Migratory Pathways. *Hum. Mol. Genet.* 11:915-922, 2002.
- 119)** Wang Q, Timur AA, Szafranski P, Sedgehour A, Jurecic V, Cowell J, **Baldini A,** Driscoll DJ. Identification and molecular characterization of de novo translocation t(8;14)(q22.3;q13) associated with a vascular and tissue overgrowth syndrome. *Cytogenet Cell Genet.* 95: 183-188, 2001.
- 118) Baldini A.** Pharyngeal apparatus and cardiac neural crest defects. Book Chapter for the II<sup>nd</sup> edition of "*The Molecular Basis of Cardiovascular Disease*", Ed.s KR Chien & C. Seidman 2004.
- 117)** Paylor R, McIlwain KL, McAnich R, Nelis A, Yuva-Paylor LA, **Baldini A,** Lindsay EA. Mice deleted for the DiGeorge/velocardiofacial syndrome region show abnormal sensorimotor gating and learning and memory impairments. *Hum.Mol.Genet.* 10: 2645-2650, 2001
- 116)** Lindsay EA, Vitelli F, Su H, Morishima M, Huynh T, Pramparo T, Jurecic V, Ogunrinu G, Sutherland H, Scambler PJ, Bradley A, **Baldini A.** *Tbx1* haploinsufficiency in the DiGeorge syndrome region causes aortic arch defects in mice. *Nature*, 410:97-101, 2001.
- 115)** Lindsay EA, **Baldini A.** Recovery from arterial growth delay reduces the penetrance of cardiovascular defects in mice deleted for the DiGeorge Syndrome region. *Hum. Mol. Genet.* 10:997-1002, 2001.
- 114)** Ogura K, Matsumoto K, Kuroiwa A, Isobe T, Otaguro T, Jurecic V, **Baldini A,** Matsuda Y, Ogura T. Cloning and chromosomal mapping of human and chicken *iroquois (Irx)* genes. *Cytogenet. Cell Genet.* 92:320-325, 2001.
- 112)** Lindsay EA, Botta A, Jurecic V, Cheah Y-C, Rivera S, Rosenblatt H, Bradley A, **Baldini A.** Congenital Heart Disease in Mice Deficient for the DiGeorge Syndrome Region. *Nature*, 401 :379-383, 1999.