Stanford

Mark Mercola

Professor of Medicine (Cardiovascular) and, by courtesy, of Chemical and Systems Biology

Medicine - Cardiovascular Medicine

Bio

BIO

Dr. Mercola is Professor of Medicine and Professor in the Stanford Cardiovascular Institute. He completed postdoctoral training at the Dana-Farber Cancer Institute and Harvard Medical School, was on the faculty in the Department of Cell Biology at Harvard Medical School for 12 years, and later at the Sanford-Burnham-Prebys Institute and Department of Bioengineering at the University of California, San Diego before relocating to Stanford in 2015.

Prof. Mercola is known for identifying many of the factors that are responsible for inducing and forming the heart, including the discovery that Wnt inhibition is a critical step in cardiogenesis that provided the conceptual basis and reagents for the large-scale production of cardiovascular tissues from pluripotent stem cells. He has collaborated with medicinal chemists, optical engineers and software developers to pioneer the use of patient iPSC-cardiomyocytes for disease modeling, safety pharmacology and drug development. His academic research is focused on developing and using quantitative high throughput assays of patient-specific cardiomyocyte function to discover druggable targets for preserving contractile function in heart failure and promoting regeneration following ischemic injury. He co-established drug screening and assay development at the Conrad Prebys Drug Discovery Center (San Diego), which operated as one of 4 large screening centers of the US National Institutes of Health (NIH) Molecular Libraries screening initiative and continues as one of the largest academic drug screening centers.

Prof. Mercola received an NIH MERIT award for his work on heart formation. He holds numerous patents, including describing the invention of the first engineered dominant negative protein and small molecules for stem cell and cancer applications. He serves on multiple editorial and advisory boards, including Vala Sciences, Regencor, The Ted Rogers Centre for Heart Research and the Human Biomolecular Research Institute. His laboratory is funded by the National Institutes of Health (NIH), California Institute for Regenerative Medicine, Phospholamban Foundation and Fondation Leducq.

ACADEMIC APPOINTMENTS

- Professor, Medicine - Cardiovascular Medicine
- Professor (By courtesy), Chemical and Systems Biology
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Maternal & Child Health Research Institute (MCHRI)

LINKS

- Mercola Lab website: http://med.stanford.edu/mercolalab.html

Teaching

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Francisco Galdos

Publications

PUBLICATIONS

- **Inhibition of miR-25 ameliorates cardiac and skeletal muscle dysfunction in agedmdx/utrnhaploinsufficient (+/-) mice.** *Molecular therapy. Nucleic acids*
  Kepreotis, S. V., Oh, J. G., Park, M., Yoo, J., Lee, C., Mercola, M., Hajjar, R. J., Jeong, D.
  2024; 35 (2): 102174

- **Action potential heterogeneity in the myosin binding protein C3 mutant, R943x**
  Abdelsayed, M., Mercola, M.
  CELL PRESS.2023: 35A-36A

- **Action potential heterogeneity in the myosin binding protein C3 mutant, R943x.** *Biophysical journal*
  Abdelsayed, M., Mercola, M.
  2023; 122 (3S1): 35a-36a

- **A deep learning platform to assess drug proarrhythmia risk.** *Cell stem cell*
  Serrano, R., Feyen, D. A., Bruyneel, A. A., Hnatiuk, A. P., Vu, M. M., Amatya, P. L., Perea-Gil, I., Prado, M., Seeger, T., Wu, J. C., Karakikes, I., Mercola, M.
  2022

- **Cellular and subcellular optogenetic approaches towards neuroprotection and vision restoration.** *Progress in retinal and eye research*
  Wood, E. H., Kreymerman, A., Kowal, T., Buickians, D., Sun, Y., Muscat, S., Mercola, M., Moshfeghi, D. M., Goldberg, J. L.
  2022: 101153

- **Personalized Therapeutic Pathways That Target the Molecular Mechanisms of Dilated Cardiomyopathy**
  Briganti, F., Mercola, M.
  LIPPINCOTT WILLIAMS & WILKINS.2022: E179-E180

- **Multiplexed cardiomyopathy and proarrhythmia (cardiotoxicity) assay of huma- induced pluripotent stem cellderived cardiomyocytes for early drug development**
  Price, J., Basa, R., McDonough, P., Mercola, M., Serrano, R., Handley, C.
  ELSEVIER SCIENCE INC.2022

- **Metabolic Maturation Increases Susceptibility to Hypoxia-induced Damage in Human iPSC-derived Cardiomyocytes.** *Stem cells translational medicine*
  Peters, M. C., Maas, R. G., van Adrichem, I., Doevendans, P. A., Mercola, M., Saric, T., Buikema, J. W., van Mil, A., Chamuleau, S. A., Sluijter, J. P., Hnatiuk, A. P., Neef, K.
  2022

- **Designing Novel BCR-ABL Inhibitors for Chronic Myeloid Leukemia with Improved Cardiac Safety.** *Journal of medicinal chemistry*
  Pandrala, M., Bruyneel, A. A., Hnatiuk, A. P., Mercola, M., Malhotra, S. V.
  2022

- **Reengineering Ponatinib to Minimize Cardiovascular Toxicity** *CANCER RESEARCH*
  Hnatiuk, A. P., Bruyneel, A. N., Tailor, D., Pandrala, M., Dheeraj, A., Li, W., Serrano, R., Feyen, D. M., Vu, M. M., Amatya, P., Gupta, S., Nakauchi, Y., Morgado, et al
  2022; 82 (15): 2777-2791

- **Serine biosynthesis as a novel therapeutic target for dilated cardiomyopathy.** *European heart journal*
  Perea-Gil, I., Seeger, T., Bruyneel, A. A., Termglinchan, V., Monte, E., Lim, E. W., Vadgama, N., Furihata, T., Gavidia, A. A., Arthur Ataam, J., Bharucha, N., Martinez-Amador, N., Ameen, et al
  2022

- **Publisher Correction: Phenotypic drug discovery: recent successes, lessons learned and new directions.** *Nature reviews. Drug discovery*
  Vincent, F., Nueda, A., Lee, J., Schenone, M., Prunotto, M., Mercola, M.
  2022
- **Phenotypic drug discovery: recent successes, lessons learned and new directions.** *Nature reviews. Drug discovery*
  Vincent, F., Nueda, A., Lee, J., Schenone, M., Prunotto, M., Mercola, M.
  2022
- **Repurposing drugs to treat cardiovascular disease in the era of precision medicine.** *Nature reviews. Cardiology*
  Abdelsayed, M., Kort, E. J., Jovinge, S., Mercola, M.
  2022
- **SARS-CoV-2 Susceptibility and ACE2 Gene Variations Within Diverse Ethnic Backgrounds.** *Frontiers in genetics*
  Vadgama, N., Kreymerman, A., Campbell, J., Shamardina, O., Brugger, C., Research Consortium, G. E., Deaconescu, A. M., Lee, R. T., Penkett, C. J., Gifford, C. A., Mercola, M., Nasir, J., Karakikes, et al
  2022; 13: 888025
- **Cardiomyocyte Na+ and Ca2+ mishandling drives vicious cycle involving CaMKII, ROS, and ryanodine receptors.** *Basic research in cardiology*
  Hegyi, B., Polonen, R., Hellgren, K. T., Ko, C. Y., Ginsburg, K. S., Bossuyt, J., Mercola, M., Bers, D. M.
  2021; 116 (1): 58
- **Highlights from Stanford Drug Discovery Symposium 2021.** *Cardiovascular research*
  Chase, A. J., Malhotra, S. V., Mercola, M., Singh, K., Wu, J. C.
  2021
- **Human-induced pluripotent stem cell-derived cardiomyocytes: Cardiovascular properties and metabolism and pharmacokinetics of deuterated mexiletine analogs.** *Pharmacology research & perspectives*
  Gomez-Galeno, J., Okolotowicz, K., Johnson, M., McKeithan, W. L., Mercola, M., Cashman, J. R.
  2021; 9 (4): e00828
- **The Present and Future of Mitochondrial-Based Therapeutics for Eye Disease.** *Translational vision science & technology*
  Ji, M. H., Kreymerman, A., Belle, K., Ghiam, B. K., Muscat, S. P., Mahajan, V. B., Enns, G. M., Mercola, M., Wood, E. H.
  2021; 10 (8): 4
- **Myocardial hypoxic stress mediates functional cardiac extracellular vesicle release.** *European heart journal*
  Anselmo, A., Frank, D., Papa, L., Viviani Anselmi, C., Di Pasquale, E., Mazzola, M., Panico, C., Clemente, F., Soldani, C., Pagiatakis, C., Hinkel, R., Thalmann, R., Kozlik-Feldmann, et al
  2021
- **Human iPSC-derived Cardiomyocytes and Pyridyl-Phenyl Mexiletine Analogs.** *Bioorganic & medicinal chemistry letters*
  Johnson, M., Gomez-Galeno, J., Ryan, D., Okolotowicz, K., McKeithan, W. L., Sampson, K. J., Kass, R. S., Mercola, M., Cashman, J. R.
  2021: 128162
- **Antiarrhythmic Hit to Lead Refinement in a Dish Using Patient-Derived iPSC Cardiomyocytes.** *Journal of medicinal chemistry*
  Cashman, J. R., Ryan, D., McKeithan, W. L., Okolotowicz, K., Gomez-Galeno, J., Johnson, M., Sampson, K. J., Kass, R. S., Pezhouman, A., Karagueuzian, H. S., Mercola, M.
  2021
- **The Unfolded Protein Response as a Compensatory Mechanism and Potential Therapeutic Target in PLN R14del Cardiomyopathy.** *Circulation*
  Feyen, D. A., Perea-Gil, I., Maas, R. G., Harakalova, M., Gavidia, A. A., Arthur Ataam, J., Wu, T., Vink, A., Pei, J., Vadgama, N., Suurmeijer, A. J., Te Rijdt, W. P., Vu, et al
  2021
- **miR-132/212 Impairs Cardiomyocytes Contractility in the Failing Heart by Suppressing SERCA2a** *FRONTIERS IN CARDIOVASCULAR MEDICINE*
  Lei, Z., Wahlquist, C., el Azzouzi, H., Deddens, J. C., Kuster, D., van Mil, A., Rojas-Munoz, A., Huibers, M. M., Mercola, M., de Weger, R., van der Velden, J., Xiao, J., Doevendans, et al
  2021; 8: 592362
- **Temporal mechanisms of myogenic specification in human induced pluripotent stem cells.** *Science advances*
  Nayak, P., Colas, A., Mercola, M., Varghese, S., Subramaniam, S.

2021; 7 (12)

- **CRISPR/Cas9-based targeting of fluorescent reporters to human iPSCs to isolate atrial and ventricular-specific cardiomyocytes.** *Scientific reports*
  Chirikian, O., Goodyer, W. R., Dzilic, E., Serpooshan, V., Buikema, J. W., McKeithan, W., Wu, H., Li, G., Lee, S., Merk, M., Galdos, F., Beck, A., Ribeiro, et al
  2021; 11 (1): 3026

- **Small-molecule probe reveals a kinase cascade that links stress signaling to TCF/LEF and Wnt responsiveness.** *Cell chemical biology*
  Cheng, J. n., Tsuda, M. n., Okolotowicz, K. n., Dwyer, M. n., Bushway, P. J., Colas, A. R., Lancman, J. J., Schade, D. n., Perea-Gil, I. n., Bruyneel, A. A., Lee, J. n., Vadgama, N. n., Quach, et al
  2021

- **Mitochondria-Rich Extracellular Vesicles Rescue Patient-Specific Cardiomyocytes From Doxorubicin Injury: Insights Into the SENECA Trial.** *JACC. CardioOncology*
  O'Brien, C. G., Ozen, M. O., Ikeda, G., Vaskova, E., Jung, J. H., Bayardo, N., Santoso, M. R., Shi, L., Wahlquist, C., Jiang, Z., Jung, Y., Zeng, Y., Egan, et al
  2021; 3 (3): 428-440

- **Mapping genetic variability in mature miRNAs and miRNA binding sites in prostate cancer.** *Journal of human genetics*
  Lee, B., Li, J. L., Marchica, J., Mercola, M., Patel, V., Perera, R. J.
  2021

- **Human iPSC modeling of heart disease for drug development.** *Cell chemical biology*
  Hnatiuk, A. P., Briganti, F. n., Staudt, D. W., Mercola, M. n.
  2021; 28 (3): 271–82

- **miR-106a-363 cluster in extracellular vesicles promotes endogenous myocardial repair via Notch3 pathway in ischemic heart injury.** *Basic research in cardiology*
  Jung, J. H., Ikeda, G. n., Tada, Y. n., von Bornstädt, D. n., Santoso, M. R., Wahlquist, C. n., Rhee, S. n., Jeon, Y. J., Yu, A. C., O'brien, C. G., Red-Horse, K. n., Appel, E. A., Mercola, et al
  2021; 116 (1): 19

- **Patient-Specific Induced Pluripotent Stem Cells Implicate Intrinsic Impaired Contractility in Hypoplastic Left Heart Syndrome.** *Circulation*
  Paige, S. L., Galdos, F. X., Lee, S., Chin, E. T., Ranjbarvaziri, S., Feyen, D. A., Darsha, A. K., Xu, S., Ryan, J. A., Beck, A. L., Qureshi, M. Y., Miao, Y., Gu, et al
  2020; 142 (16): 1605–8

- **Hyperglycemia Acutely Increases Cytosolic Reactive Oxygen Species via O-linked GlcNAcylation and CaMKII Activation in Mouse Ventricular Myocytes.** *Circulation research*
  Lu, S., Liao, Z., Lu, X., Katschinski, D. M., Mercola, M., Chen, J., Heller Brown, J., Molkentin, J. D., Bossuyt, J., Bers, D. M.
  2020

- **Sacubitril/Valsartan Improves Cardiac Function and Decreases Myocardial Fibrosis Via Downregulation of Exosomal miR-181a in a Rodent Chronic Myocardial Infarction Model.** *Journal of the American Heart Association*
  Vaskova, E. n., Ikeda, G. n., Tada, Y. n., Wahlquist, C. n., Mercola, M. n., Yang, P. C.
  2020: e015640

- **Contacts between CMOS circuits and cell membrane by silicon nanowires**
  Galderisi, G., Feyen, D. M., Gaetani, R., Mercola, M., Messina, E., Palma, F., IEEE
  IEEE.2020

- **Metabolic Maturation Media Improve Physiological Function of Human iPSC-Derived Cardiomyocytes.** *Cell reports*
  Feyen, D. A., McKeithan, W. L., Bruyneel, A. A., Spiering, S. n., Hörmann, L. n., Ulmer, B. n., Zhang, H. n., Briganti, F. n., Schweizer, M. n., Hegyi, B. n., Liao, Z. n., Pölönen, R. P., Ginsburg, et al
  2020; 32 (3): 107925

- **Reengineering an Antiarrhythmic Drug Using Patient hiPSC Cardiomyocytes to Improve Therapeutic Potential and Reduce Toxicity.** *Cell stem cell*
  McKeithan, W. L., Feyen, D. A., Bruyneel, A. A., Okolotowicz, K. J., Ryan, D. A., Sampson, K. J., Potet, F. n., Savchenko, A. n., Gómez-Galeno, J. n., Vu, M. n., Serrano, R. n., George, A. L., Kass, et al
  2020

- **iPSC Modeling of RBM20-Deficient DCM Identifies Upregulation of RBM20 as a Therapeutic Strategy.** *Cell reports*
  Briganti, F. n., Sun, H. n., Wei, W. n., Wu, J. n., Zhu, C. n., Liss, M. n., Karakikes, I. n., Rego, S. n., Cipriano, A. n., Snyder, M. n., Meder, B. n., Xu, Z. n., Millat, et al

2020; 32 (10): 108117

- **A Novel Recessive Mutation in SPEG Causes Early Onset Dilated Cardiomyopathy.** *PLoS genetics*
  Levitas, A. n., Muhammad, E. n., Zhang, Y. n., Perea Gil, I. n., Serrano, R. n., Diaz, N. n., Arafat, M. n., Gavidia, A. A., Kapiloff, M. S., Mercola, M. n., Etzion, Y. n., Parvari, R. n., Karakikes, et al
  2020; 16 (9): e1009000

- **Small-Molecule Modulation of TDP-43 Recruitment to Stress Granules Prevents Persistent TDP-43 Accumulation in ALS/FTD** *NEURON*
  Fang, M. Y., Markmiller, S., Vu, A. Q., Javaherian, A., Dowdle, W. E., Jolivet, P., Bushway, P. J., Castello, N. A., Baral, A., Chan, M. Y., Linsley, J. W., Linsley, D., Mercola, et al
  2019; 103 (5): 802-+

- **Identification of a potent inhibitor of notch signaling**
  Galeno, J., Hurtado, C., Cashman, J., Mercola, M., Cheng, J., Yardimci, C.
  AMER CHEMICAL SOC.2019

- **Integrated analysis of transcriptional regulation in PLN R14del cardiomyopathy**
  Pei, J., Harakalova, M., Nagyova, E., Gho, J. H., Sepehrkhouy, S., van Dinter, J., van Mil, A., Buijsrogge, M. P., de Jonge, N., Huibers, M. M., Nieuwenhuis, E. S., den Ruijter, H. M., Pasterkamp, et al
  NATURE PUBLISHING GROUP.2019: 790–91

- **Stars in the Night Sky: iPSC-Cardiomyocytes Return the Patient Context to Drug Screening** *CELL STEM CELL*
  Hnatiuk, A., Mercola, M.
  2019; 24 (4): 506–7

- **A Premature Termination Codon Mutation in MYBPC3 Causes Hypertrophic Cardiomyopathy via Chronic Activation of Nonsense-Mediated Decay** *CIRCULATION*
  Seeger, T., Shrestha, R., Lam, C., Chen, C., McKeithan, W. L., Lau, E., Wnorowski, A., McMullen, G., Greenhaw, M., Lee, J., Oikonomopoulos, A., Lee, S., Yang, et al
  2019; 139 (6): 799–811

- **Crataegus Extract WS1442 Stimulates Cardiomyogenesis and Angiogenesis From Stem Cells: A Possible New Pharmacology for Hawthorn?** *Frontiers in pharmacology*
  Halver, J., Wenzel, K., Sendker, J., Carrillo Garcia, C., Erdelmeier, C. A., Willems, E., Mercola, M., Symma, N., Konemann, S., Koch, E., Hensel, A., Schade, D.
  2019; 10: 1357

- **Disruption of NOTCH signaling by a small molecule inhibitor of the transcription factor RBPJ.** *Scientific reports*
  Hurtado, C. n., Safarova, A. n., Smith, M. n., Chung, R. n., Bruyneel, A. A., Gomez-Galeno, J. n., Oswald, F. n., Larson, C. J., Cashman, J. R., Ruiz-Lozano, P. n., Janiak, P. n., Suzuki, T. n., Mercola, et al
  2019; 9 (1): 10811

- **AlleleProfileR: A versatile tool to identify and profile sequence variants in edited genomes.** *PloS one*
  Bruyneel, A. A., Colas, A. R., Karakikes, I., Mercola, M.
  2019; 14 (12): e0226694

- **High-Throughput Phenotypic Screening Using Induced Pluripotent Stem Cell Derived Cardiomyocytes Identifies Compounds That Rescue Genetic Dilated Cardiomyopathy**
  Perea-Gil, I., Prado, M., Bruyneel, A. A., McKeithan, W. L., Feyen, D. A., Nair, P., Mercola, M., Karakikes, I.
  LIPPINCOTT WILLIAMS & WILKINS.2018: E72

- **Mechanosensitive miR-376c Modulates Arrhythmia Susceptibility Via Regulation Of KCNJ2 In hiPSC-derived Cardiomyocytes**
  Wahlquist, C. A., Rojas-Munoz, A., Brunyeel, A. A., Greenhaw, M., Chung, R., Vu, M., Karakikes, I., Mercola, M.
  LIPPINCOTT WILLIAMS & WILKINS.2018: E79

- **Use of human induced pluripotent stem cell-derived cardiomyocytes to assess drug cardiotoxicity** *NATURE PROTOCOLS*
  Sharma, A., McKeithan, W. L., Serrano, R., Kitani, T., Burridge, P. W., del Alamo, J. C., Mercola, M., Wu, J. C.
  2018; 13 (12): 3018–41

- **Use of human induced pluripotent stem cell-derived cardiomyocytes to assess drug cardiotoxicity.** *Nature protocols*
  Sharma, A., McKeithan, W. L., Serrano, R., Kitani, T., Burridge, P. W., Del Alamo, J. C., Mercola, M., Wu, J. C.
  2018

- **High-Throughput Physiological Assay for Force and Stiffness Quantification in IPS Derived Cardiomyocytes**
  Serrano, R., McKeithan, W. L., Mercola, M., del Alamo, J. C.
  LIPPINCOTT WILLIAMS & WILKINS.2018

- **Exosomal miR-106a-363 Cluster Repairs the Injured Myocardium**
  Jung, J., Tada, Y., Wahlquist, C., Bornstadt, D., Santoso, M., Woo, J., Mercola, M., Yang, P.
  LIPPINCOTT WILLIAMS & WILKINS.2018

- **b-Annulated 1,4-dihydropyridines as Notch inhibitors** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*
  Gomez-Galeno, J. E., Hurtado, C., Cheng, J., Yardimci, C., Mercola, M., Cashman, J. R.
  2018; 28 (20): 3363–67

- **A Premature Termination Codon Mutation in MYBPC3 Causes Hypertrophic Cardiomyopathy via Chronic Activation of Nonsense-Mediated Decay.** *Circulation*
  Seeger, T., Shrestha, R., Lam, C. K., Chen, C., McKeithan, W. L., Lau, E., Wnorowski, A., McMullen, G., Greenhaw, M., Lee, J., Oikonomopoulos, A., Lee, S., Yang, et al
  2018

- **Will iPSC-cardiomyocytes revolutionize the discovery of drugs for heart disease?** *CURRENT OPINION IN PHARMACOLOGY*
  Bruyneel, A. N., McKeithan, W. L., Feyen, D. M., Mercola, M.
  2018; 42: 55–61

- **A Novel Inhibitor Targets Both Wnt Signaling and ATM/p53 in Colorectal Cancer** *CANCER RESEARCH*
  Cheng, J., Dwyer, M., Okolotowicz, K. J., Mercola, M., Cashman, J. R.
  2018; 78 (17): 5072–83

- **Novel tertiary sulfonamides as potent anti-cancer agents** *BIOORGANIC & MEDICINAL CHEMISTRY*
  Okolotowicz, K. J., Dwyer, M., Ryan, D., Cheng, J., Cashman, E. A., Moore, S., Mercola, M., Cashman, J. R.
  2018; 26 (15): 4441–51

- **Will iPSC-cardiomyocytes revolutionize the discovery of drugs for heart disease?** *Current opinion in pharmacology*
  Bruyneel, A. A., McKeithan, W. L., Feyen, D. A., Mercola, M.
  2018; 42: 55–61

- **Using iPSC Models to Probe Regulation of Cardiac Ion Channel Function** *CURRENT CARDIOLOGY REPORTS*
  Bruyneel, A. N., McKeithan, W. L., Feyen, D. M., Mercola, M.
  2018; 20 (7): 57

- **INHIBITING MIR-25 THROUGH TOUGH DECOY GENE THERAPY IMPROVES CALCIUM HANDLING AND ABROGATES CARDIAC DYSFUNCTION IN AGED MDX/UTRN KO MICE**
  Kepreotis, S., Jeong, D., Mercola, M., Hajjar, R. J.
  WILEY.2018: 5

- **EXOSOMAL MIR-106A-363 CLUSTER FROM THE HYPOXIC HUMAN IPSC-DERIVED CARDIOMYOCYTES RESTORE THE ISCHEMIC MYOCARDIUM**
  Jung, J., Tada, Y., Bornstaedt, D., Wahlquist, C., Mercola, M., Woo, Y., Yang, P.
  ELSEVIER SCIENCE INC.2018: 14

- **High-Throughput Functional Screening Assay of Force and Stiffness in IPSC Derived Cardiomyocytes**
  Serrano, R., McKeithan, W., Mercola, M., del Alamo, J.
  CELL PRESS.2018: 312A

- **Id genes are essential for early heart formation** *GENES & DEVELOPMENT*
  Cunningham, T. J., Yu, M. S., McKeithan, W. L., Spiering, S., Carrette, F., Huang, C., Bushway, P. J., Tierney, M., Albini, S., Giacca, M., Mano, M., Puri, P., Sacco, et al
  2017; 31 (13): 1325–38

- **The CSRP2BP histone acetyltransferase drives smooth muscle gene expression** *NUCLEIC ACIDS RESEARCH*
  Ma, Y., Li, Q., Li, A., Wei, Y., Long, P., Jiang, X., Sun, F., Weiskirchen, R., Wu, B., Liang, C., Groetzinger, J., Wei, Y., Yu, et al
  2017; 45 (6): 3046–58

- **High-throughput screening of tyrosine kinase inhibitor cardiotoxicity with human induced pluripotent stem cells.** *Science translational medicine*
  Sharma, A., Burridge, P. W., McKeithan, W. L., Serrano, R., Shukla, P., Sayed, N., Churko, J. M., Kitani, T., Wu, H., Holmström, A., Matsa, E., Zhang, Y., Kumar, et al
  2017; 9 (377)

- **Bringing new dimensions to drug discovery screening: impact of cellular stimulation technologies.** *Drug discovery today*
  Molokanova, E., Mercola, M., Savchenko, A.
  2017

- **miR-25 Tough Decoy Enhances Cardiac Function in Heart Failure.** *Molecular therapy : the journal of the American Society of Gene Therapy*
  Jeong, D. n., Yoo, J. n., Lee, P. n., Kepreotis, S. V., Lee, A. n., Wahlquist, C. n., Brown, B. D., Kho, C. n., Mercola, M. n., Hajjar, R. J.
  2017

- **Id genes are essential for early heart formation** *Genes & Dev.*
  Cunningham, T. J., Yu, M. S., McKeithan, W. L., Spiering, S., Carrette, F., Huang, C., Bushway, P. J., Tierney, M., Albini, S., Giacca, M., Mano, M., Puri, P., Sacco, et al
  2017; 31: 1325-1338

- **An Automated Platform for Assessment of Congenital and Drug-Induced Arrhythmia with hiPSC-Derived Cardiomyocytes.** *Frontiers in physiology*
  McKeithan, W. L., Savchenko, A. n., Yu, M. S., Cerignoli, F. n., Bruyneel, A. A., Price, J. H., Colas, A. R., Miller, E. W., Cashman, J. R., Mercola, M. n.
  2017; 8: 766

- **miR-322/-503 cluster is expressed in the earliest cardiac progenitor cells and drives cardiomyocyte specification** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Shen, X., Soibam, B., Benham, A., Xu, X., Chopra, M., Peng, X., Yu, W., Bao, W., Liang, R., Azares, A., Liu, P., Gunaratne, P. H., Mercola, et al
  2016; 113 (34): 9551-9556

- **The All-Chemical Approach: A Solution for Converting Fibroblasts Into Myocytes.** *Circulation research*
  Liu, Y., Mercola, M., Schwartz, R. J.
  2016; 119 (4): 505-507

- **Extracellular vesicles as effective substitutes for cell therapy for chronic heart failure**
  Kervadec, A., Bellamy, V., El Harane, N., Smit, N., Meijborg, V., Nematalla, H., Perier, M. C., Renault, M. P., Colas, A., Hagege, A., Colonel, R., Mercola, M., Silvestre, et al
  OXFORD UNIV PRESS.2016: 397

- **High throughput physiological screening of iPSC-derived cardiomyocytes for drug development** *BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR CELL RESEARCH*
  del Alamo, J. C., Lemons, D., Serrano, R., Savchenko, A., Cerignoli, F., Bodmer, R., Mercola, M.
  2016; 1863 (7): 1717-1727

- **Identification of miRNAs promoting human cardiomyocyte proliferation by regulating Hippo pathway**
  Cunado, M., Wei, K., Bushway, P., Ruiz-Lozano, P., Mercola, M.
  OXFORD UNIV PRESS.2016: S17

- **Notch-independent RBPJ controls angiogenesis in the adult heart** *NATURE COMMUNICATIONS*
  Diaz-Trelles, R., Scimia, M. C., Bushway, P., Tran, D., Monosov, A., Monosov, E., Peterson, K., Rentschler, S., Cabrales, P., Ruiz-Lozano, P., Mercola, M.
  2016; 7

- **Inhibition of Tumor Growth in an Orthotopic Model of Invasive Pancreatic Cancer: A Novel Molecular Pathway Inhibitor**
  Cheng, J., Okolotowicz, K., Lowy, A. M., Mercola, M., Cashman, J.
  FEDERATION AMER SOC EXP BIOL.2016

- **Metallic Nanoislands on Graphene as Highly Sensitive Transducers of Mechanical, Biological, and Optical Signals** *NANO LETTERS*
  Zaretski, A. V., Root, S. E., Savchenko, A., Molokanova, E., Printz, A. D., Jibril, L., Arya, G., Mercola, M., Lipomi, D. J.
  2016; 16 (2): 1375-1380

- **A molecular pathway inhibitor that inhibits tumor growth in an orthotopic model of invasive pancreatic cancer**
  Cashman, J., Okolotowicz, K., Cheng, J., Lowy, A. M., Mercola, M.
  TAYLOR & FRANCIS LTD.2016: 57–58

- **DISEASE IN A DISH: PATIENT-SPECIFIC hiPSC-DERIVED CARDIOMYOCYTES TO STUDY LONG QT INTERVAL AND hERG CHANNEL TOXICITY**
  Ryan, D. A., Okolotowicz, K. J., McKeithan, W. L., Savtchenko, A., Kass, R. S., Mercola, M., Cashman, J. R.
  TAYLOR & FRANCIS LTD.2015: 100

- **Epicardial FSTL1 reconstitution regenerates the adult mammalian heart.** *Nature*
  Wei, K., Serpooshan, V., Hurtado, C., Diez-Cuñado, M., Zhao, M., Maruyama, S., Zhu, W., Fajardo, G., Noseda, M., Nakamura, K., Tian, X., Liu, Q., Wang, et al
  2015; 525 (7570): 479-485

- **Retinoic Acid Activity in Undifferentiated Neural Progenitors Is Sufficient to Fulfill Its Role in Restricting Fgf8 Expression for Somitogenesis** *PLOS ONE*
  Cunningham, T. J., Brade, T., Sandell, L. L., Lewandoski, M., Trainor, P. A., Colas, A., Mercola, M., Duester, G.
  2015; 10 (9)

- **1,5-Disubstituted benzimidazoles that direct cardiomyocyte differentiation from mouse embryonic stem cells** *BIOORGANIC & MEDICINAL CHEMISTRY*
  Okolotowicz, K. J., Bushway, P., Lanier, M., Gilley, C., Mercola, M., Cashman, J. R.
  2015; 23 (17): 5282-5292

- **Developmental origin of age-related coronary artery disease.** *Cardiovascular research*
  Wei, K., Díaz-Trelles, R., Liu, Q., Diez-Cuñado, M., Scimia, M., Cai, W., Sawada, J., Komatsu, M., Boyle, J. J., Zhou, B., Ruiz-Lozano, P., Mercola, M.
  2015; 107 (2): 287-294

- **Stereoselective synthesis of mexiletine and structural analogs with chiral tert-butanesulfinamide** *TETRAHEDRON LETTERS*
  Ryan, D. A., Okolotowicz, K. J., Mercola, M., Cashman, J. R.
  2015; 56 (28): 4195–99

- **Cholesterol-derived glucocorticoids control early fate specification in embryonic stem cells** *STEM CELL RESEARCH*
  Cabral-Teixeira, J., Martinez-Fernandez, A., Cai, W., Terzic, A., Mercola, M., Willems, E.
  2015; 15 (1): 88-95

- **Cyclic stretch of embryonic cardiomyocytes increases proliferation, growth, and expression while repressing Tgf-beta signaling** *JOURNAL OF MOLECULAR AND CELLULAR CARDIOLOGY*
  Banerjee, I., Carrion, K., Serrano, R., Dyo, J., Sasik, R., Lund, S., Willems, E., Aceves, S., Meili, R., Mercola, M., Chen, J., Zambon, A., Hardiman, et al
  2015; 79: 133-144

- **High content screening for modulators of cardiac differentiation in human pluripotent stem cells.** *Methods in molecular biology (Clifton, N.J.)*
  Spiering, S., Davidovics, H., Bushway, P. J., Mercola, M., Willems, E.
  2015; 1263: 43-61

- **Cyclic stretch of Embryonic Cardiomyocytes Increases Proliferation, Growth, and Expression While Repressing Tgf-[beta] Signaling**
  Banerjee, I., Carrion, K., Serrano, R., Dyo, J., Lund, S., Willems, E., Aceves, S., Meili, R., Mercola, M., Chen, J., Zambon, A., Zambon, A., Hardiman, et al
  LIPPINCOTT WILLIAMS & WILKINS.2014

- **Inhibition of miR-25 improves cardiac contractility in the failing heart** *NATURE*
  Wahlquist, C., Jeong, D., Rojas-Munoz, A., Kho, C., Lee, A., Mitsuyama, S., Van Mil, A., Park, W. J., Sluijter, J. P., Doevendans, P. A., Hajjar, R. J., Mercola, M.
  2014; 508 (7497): 531-?

- **HDAC-regulated myomiRs control BAF60 variant exchange and direct the functional phenotype of fibro-adipogenic progenitors in dystrophic muscles** *GENES & DEVELOPMENT*
  Saccone, V., Consalvi, S., Giordani, L., Mozzetta, C., Barozzi, I., Sandona, M., Ryan, T., Rojas-Munoz, A., Madaro, L., Fasanaro, P., Borsellino, G., De Bardi, M., Frige, et al
  2014; 28 (8): 841-857

- **Reprogramming the Cardiac Field** *CIRCULATION RESEARCH*
  Willems, E., Mercola, M.
  2014; 114 (3): 409-411

- **Multiparametric One-Color Assays for Functional Assessment of Cardiomyocytes**
  Savtchenko, A., Ruidiaz, M., Miller, E. W., McKeithan, W., Heynen-Genel, S., Mercola, M.
  CELL PRESS.2014: 720A

- **Technical Variations in Low-Input RNA-seq Methodologies** *SCIENTIFIC REPORTS*
  Bhargava, V., Head, S. R., Ordoukhanian, P., Mercola, M., Subramaniam, S.
  2014; 4

- **A POTENT MOLECULAR PATHWAY INHIBITOR THAT INHIBITS CANCER CELL PROLIFERATION**
  Cashman, J., Okolotowicz, K., Dwyer, M., Chen, S., Mercola, M.
  INFORMA HEALTHCARE.2014: 103

- **Coordinate Nodal and BMP inhibition directs Baf60c-dependent cardiomyocyte commitment** *GENES & DEVELOPMENT*
  Cai, W., Albini, S., Wei, K., Willems, E., Guzzo, R. M., Tsuda, M., Giordani, L., Spiering, S., Kurian, L., Yeo, G. W., Puri, P. L., Mercola, M.
  2013; 27 (21): 2332-2344

- **Jumonji and Cardiac Fate** *CIRCULATION RESEARCH*
  Willems, E., Mercola, M.
  2013; 113 (7): 837-839

- **Simultaneous recording of action potentials and calcium transients from stem cell-derived cardiomyocytes: Applications for cardiotoxicity testing**
  Whittaker, R., Cerignoli, F., Ingermanson, R., Towart, R., Gallacher, D. J., Mercola, M., Price, J.
  ELSEVIER SCIENCE INC.2013: E47

- **Quantitative Transcriptomics using Designed Primer-based Amplification** *SCIENTIFIC REPORTS*
  Bhargava, V., Ko, P., Willems, E., Mercola, M., Subramaniam, S.
  2013; 3

- **Induced Pluripotent Stem Cells in Cardiovascular Drug Discovery** *CIRCULATION RESEARCH*
  Mercola, M., Colas, A., Willems, E.
  2013; 112 (3): 534-548

- **Developing microRNA screening as a functional genomics tool for disease research.** *Frontiers in physiology*
  Lemons, D., Maurya, M. R., Subramaniam, S., Mercola, M.
  2013; 4: 223-?

- **CARDIOVASCULAR BIOLOGY A boost for heart regeneration** *NATURE*
  Mercola, M.
  2012; 492 (7429): 360-362

- **BAF60 A, B, and Cs of muscle determination and renewal** *GENES & DEVELOPMENT*
  Puri, P. L., Mercola, M.
  2012; 26 (24): 2673-2683

- **Whole-genome microRNA screening identifies let-7 and mir-18 as regulators of germ layer formation during early embryogenesis** *GENES & DEVELOPMENT*
  Colas, A. R., McKeithan, W. L., Cunningham, T. J., Bushway, P. J., Garmire, L. X., Duester, G., Subramaniam, S., Mercola, M.
  2012; 26 (23): 2567-2579

- **Synthesis and SAR of b-Annulated 1,4-Dihydropyridines Define Cardiomyogenic Compounds as Novel Inhibitors of TGF beta Signaling** *JOURNAL OF MEDICINAL CHEMISTRY*
  Schade, D., Lanier, M., Willems, E., Okolotowicz, K., Bushway, P., Wahlquist, C., Gilley, C., Mercola, M., Cashman, J. R.
  2012; 55 (22): 9946-9957

- **High throughput measurement of Ca2+ dynamics for drug risk assessment in human stem cell-derived cardiomyocytes by kinetic image cytometry** *JOURNAL OF PHARMACOLOGICAL AND TOXICOLOGICAL METHODS*
  Cerignoli, F., Charlot, D., Whittaker, R., Ingermanson, R., Gehalot, P., Savchenko, A., Gallacher, D. J., Towart, R., Price, J. H., McDonough, P. M., Mercola, M.
  2012; 66 (3): 246-256

- **TGF beta-Dependent Epithelial-to-Mesenchymal Transition Is Required to Generate Cardiospheres from Human Adult Heart Biopsies** *STEM CELLS AND DEVELOPMENT*
  Forte, E., Miraldi, F., Chimenti, I., Angelini, F., Zeuner, A., Giacomello, A., Mercola, M., Messina, E.
  2012; 21 (17): 3081-3090

- **Serum-free generation of multipotent mesoderm (Kdr+) progenitor cells in mouse embryonic stem cells for functional genomics screening.** *Current protocols in stem cell biology*
  McKeithan, W. L., Colas, A. R., Bushway, P. J., Ray, S., Mercola, M.
  2012; Chapter 1: Unit 1F 13-?

- **Identification of a specific reprogramming-associated epigenetic signature in human induced pluripotent stem cells** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Ruiz, S., Diep, D., Gore, A., Panopoulos, A. D., Montserrat, N., Plongthongkum, N., Kumar, S., Fung, H., Giorgetti, A., Bilic, J., Batchelder, E. M., Zaehres, H., Kan, et al
  2012; 109 (40): 16196-16201

- **A Nodal-to-TGF beta Cascade Exerts Biphasic Control Over Cardiopoiesis** *CIRCULATION RESEARCH*
  Cai, W., Guzzo, R. M., Wei, K., Willems, E., Davidovics, H., Mercola, M.
  2012; 111 (7): 876-?

- **Image-based automatic calcium transient analysis for early cardiotoxicity testing in hiPSC-derived cardiomyocytes**
  Mercola, M., Cerignoli, F., Whittaker, R., McDonough, P., Ingermanson, R., Towart, R., Gallacher, D. J., Price, J.
  ELSEVIER SCIENCE INC.2012: 170

- **APJ acts as a dual receptor in cardiac hypertrophy** *NATURE*
  Scimia, M. C., Hurtado, C., Ray, S., Metzler, S., Wei, K., Wang, J., Woods, C. E., Purcell, N. H., Catalucci, D., Akasaka, T., Bueno, O. F., Vlasuk, G. P., Kaliman, et al
  2012; 488 (7411): 394-398

- **Transcription factors ETS2 and MESP1 transdifferentiate human dermal fibroblasts into cardiac progenitors** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Islas, J. F., Liu, Y., Weng, K., Robertson, M. J., Zhang, S., Prejusa, A., Harger, J., Tikhomirova, D., Chopra, M., Iyer, D., Mercola, M., Oshima, R. G., Willerson, et al
  2012; 109 (32): 13016-13021

- **Small Molecule-Mediated TGF-beta Type II Receptor Degradation Promotes Cardiomyogenesis in Embryonic Stem Cells** *CELL STEM CELL*
  Willems, E., Cabral-Teixeira, J., Schade, D., Cai, W., ReeveS, P., Bushway, P. J., Lanier, M., Walsh, C., Kirchhausen, T., Izpisua Belmonte, J. C., Cashman, J., Mercola, M.
  2012; 11 (2): 242-252

- **A Novel TGFb Selective Inhibitor Drives Cardiogenesis in Embryonic Stem Cells**
  Willems, E., Teixeira, J., Schade, D., Lanier, M., Bushway, P., Cashman, J., Mercola, M.
  LIPPINCOTT WILLIAMS & WILKINS.2012

- **RBPJ Controls the Angiogenic Response of Mouse Adult Cardiomyocytes**
  Trelles, R., Scimia, M., Lozano, P., Mercola, M.
  LIPPINCOTT WILLIAMS & WILKINS.2012

- **HNF4 alpha Antagonists Discovered by a High-Throughput Screen for Modulators of the Human Insulin Promoter** *CHEMISTRY & BIOLOGY*
  Kiselyuk, A., Lee, S., Farber-Katz, S., Zhang, M., Athavankar, S., Cohen, T., Pinkerton, A. B., Ye, M., Bushway, P., Richardson, A. D., Hostetler, H. A., Rodriguez-Lee, M., Huang, et al
  2012; 19 (7): 806-818

- **Meeting review: cardiomyocyte regeneration and protection, La Jolla, California, June 2011.**
  Mercola, M., Doevendans, P.
  2012: 100–105

- **Wnt Inhibition Correlates with Human Embryonic Stem Cell Cardiomyogenesis: A Structure-Activity Relationship Study Based on Inhibitors for the Wnt Response** *JOURNAL OF MEDICINAL CHEMISTRY*
  Lanier, M., Schade, D., Willems, E., Tsuda, M., Spiering, S., Kalisiak, J., Mercola, M., Cashman, J. R.
  2012; 55 (2): 697-708

- **Laser-Based Propagation of Human iPS and ES Cells Generates Reproducible Cultures with Enhanced Differentiation Potential** *STEM CELLS INTERNATIONAL*
  Elliott, K., Peterson, C., Soundararajan, A., Kan, N., Nelson, B., Spiering, S., Mercola, M., Bright, G. R.
  2012; 2012: 926463

- **SMALL MOLECULE-MEDIATED TGF β TYPE II RECEPTOR DEGRADATION PROMOTES CARDIOMYOGENESIS IN EMBRYONIC STEM CELLS**
  Cashman, J., Willems, E., Teixeira, J. C., Schade, D., Reeves, P., Bushway, P. J., Lanier, M., Cai, W., Walsh, C., Izpisua-Belmonte, J., Mercola, M.
  INFORMA HEALTHCARE.2012: 65–66

- **Fine-Tuning of Drp1/Fis1 Availability by AKAP121/Siah2 Regulates Mitochondrial Adaptation to Hypoxia** *MOLECULAR CELL*
  Kim, H., Scimia, M. C., Wilkinson, D., Trelles, R. D., Wood, M. R., Bowtell, D., Dillin, A., Mercola, M., Ronai, Z. A.
  2011; 44 (4): 532-544

- **Cardiomyocytes from stem cells: Towards "Disease in a dish"**
  Cashman, J. R., Lanier, M., Schade, D., Willems, E., Tsuda, M., Mercola, M.
  INFORMA HEALTHCARE.2011: 81

- **Small-Molecule Inhibitors of the Wnt Pathway Potently Promote Cardiomyocytes From Human Embryonic Stem Cell-Derived Mesoderm** *CIRCULATION RESEARCH*
  Willems, E., Spiering, S., Davidovics, H., Lanier, M., Xia, Z., Dawson, M., Cashman, J., Mercola, M.
  2011; 109 (4): 360-364

- **A Chemical Biology Approach to Myocardial Regeneration** *JOURNAL OF CARDIOVASCULAR TRANSLATIONAL RESEARCH*
  Willems, E., Lanier, M., Forte, E., Lo, F., Cashman, J., Mercola, M.
  2011; 4 (3): 340–50

- **Cardiac muscle regeneration: lessons from development** *GENES & DEVELOPMENT*
  Mercola, M., Ruiz-Lozano, P., Schneider, M. D.
  2011; 25 (4): 299-309

- **What Your Heart Doth Know** *CELL STEM CELL*
  Willems, E., Mercola, M.
  2011; 8 (2): 124-126

- **Phenothiazine Neuroleptics Signal to the Human Insulin Promoter as Revealed by a Novel High-Throughput Screen** *JOURNAL OF BIOMOLECULAR SCREENING*
  Kiselyuk, A., Farber-Katz, S., Cohen, T., Lee, S., Geron, I., Azimi, B., Heynen-Genel, S., Singer, O., Price, J., Mercola, M., Itkin-Ansari, P., Levine, F.
  2010; 15 (6): 663-670

- **Alternative splicing regulates mouse embryonic stem cell pluripotency and differentiation** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Salomonis, N., Schlieve, C. R., Pereira, L., Wahlquist, C., Colas, A., Zambon, A. C., Vranizan, K., Spindler, M. J., Pico, A. R., Cline, M. S., Clark, T. A., Williams, A., Blume, et al
  2010; 107 (23): 10514-10519

- **Non-Cardiomyocytes Influence the Electrophysiological Maturation of Human Embryonic Stem Cell-Derived Cardiomyocytes During Differentiation** *STEM CELLS AND DEVELOPMENT*
  Kim, C., Majdi, M., Xia, P., Wei, K. A., Talantova, M., Spiering, S., Nelson, B., Mercola, M., Chen, H. V.
  2010; 19 (6): 783-795

- **Hybrid Median Filter Background Estimator for Correcting Distortions in Microtiter Plate Data** *ASSAY AND DRUG DEVELOPMENT TECHNOLOGIES*
  Bushway, P. J., Azimi, B., Heynen-Genel, S., Price, J. H., Mercola, M.
  2010; 8 (2): 238-250

- **DMSO-Free Cryopreservation of Dissociated Human Embryonic Stem Cells**
  Katkov, I. I., Nelson, B., Mercola, M., Snyder, E. Y., Arav, A.
  MEDIMOND S R L.2010: 57–61

- **Cardiac myocyte force development during differentiation and maturation**
  Jacot, J. G., Kita-Matsuo, H., Wei, K. A., Chen, H., Omens, J. H., Mercola, M., McCulloch, A. D., Beyar, R., Landesberg, A.
  WILEY-BLACKWELL.2010: 121–27

- **Electrophysiological Challenges of Cell-Based Myocardial Repair** *CIRCULATION*
  Chen, H. V., Kim, C., Mercola, M.

2009; 120 (24): 2496-2508

- **Alternative Splicing in the Differentiation of Human Embryonic Stem Cells into Cardiac Precursors** *PLOS COMPUTATIONAL BIOLOGY*
  Salomonis, N., Nelson, B., Vranizan, K., Pico, A. R., Hanspers, K., Kuchinsky, A., Ta, L., Mercola, M., Conklin, B. R.
  2009; 5 (11): e1000553

- **RBPJK, a Notch Downstream Transcription Factor, Regulates Paracrine Adult Cardiomyocyte Stress Response**
  Trelles, R., Tran, D., Scimia, M., Monosov, A., Monosov, E., Mercola, M.
  LIPPINCOTT WILLIAMS & WILKINS.2009: E53

- **APJ Receptor Activity in the Pressure Overload Model**
  Scimia, M. C., Ling, Z., Asaka, T., Bodmer, R., Mercola, M., Ruiz-Lozano, P.
  LIPPINCOTT WILLIAMS & WILKINS.2009: E31

- **APJ Receptor Activity Can be Independent by Its Ligand Apelin**
  Scimia, M., Ling, Z., Bodmer, R., Mercola, M., Ruiz-Lozano, P.
  CHURCHILL LIVINGSTONE INC MEDICAL PUBLISHERS.2009: S2

- **Natural and Synthetic Regulators of Embryonic Stem Cell Cardiogenesis** *PEDIATRIC CARDIOLOGY*
  Willems, E., Bushway, P. J., Mercola, M.
  2009; 30 (5): 635-642

- **Lentiviral Vectors and Protocols for Creation of Stable hESC Lines for Fluorescent Tracking and Drug Resistance Selection of Cardiomyocytes** *PLOS ONE*
  Kita-Matsuo, H., Barcova, M., Prigozhina, N., Salomonis, N., Wei, K., Jacot, J. G., Nelson, B., Spiering, S., Haverslag, R., Kim, C., Talantova, M., Bajpai, R., Calzolari, et al
  2009; 4 (4)

- **Discovering potent molecules with human embryonic stem cells to treat heart disease**
  Gilley, C. B., Lanier, M., Okolotowicz, K., Wu, T., Ding, J., Bushway, P., Teixeira, J., Willems, E., Tsuda, M., Colas, A., Xia, Z., Mercola, M., Dawson, et al
  AMER CHEMICAL SOC.2009

- **Deletion of Shp2 Tyrosine Phosphatase in Muscle Leads to Dilated Cardiomyopathy, Insulin Resistance, and Premature Death** *MOLECULAR AND CELLULAR BIOLOGY*
  Princen, F., Bard, E., Sheikh, F., Zhang, S. S., Wang, J., Zago, W. M., Wu, D., Trelles, R. D., Bailly-Maitre, B., Kahn, C. R., Chen, Y., Reed, J. C., Tong, et al
  2009; 29 (2): 378-388

- **A novel activity of the Dickkopf-1 amino terminal domain promotes axial and heart development independently of canonical Wnt inhibition** *DEVELOPMENTAL BIOLOGY*
  Korol, O., Gupta, R. W., Mercola, M.
  2008; 324 (1): 131-138

- **Contrasting Expression of Keratins in Mouse and Human Embryonic Stem Cells** *PLOS ONE*
  Maurer, J., Nelson, B., Cecena, G., Bajpai, R., Mercola, M., Terskikh, A., Oshima, R. G.
  2008; 3 (10)

- **Notch activates cell cycle reentry and progression in quiescent cardiomyocytes** *JOURNAL OF CELL BIOLOGY*
  Campa, V. M., Gutierrez-Lanza, R., Cerignoli, F., Diaz-Trelles, R., Nelson, B., Tsuji, T., Barcova, M., Jiang, W., Mercola, M.
  2008; 183 (1): 129-141

- **A comparative analysis of standard microtiter plate reading versus imaging in cellular assays** *ASSAY AND DRUG DEVELOPMENT TECHNOLOGIES*
  Bushway, P. J., Mercola, M., Price, J. H.
  2008; 6 (4): 557–67

- **Natural and small molecule regulators of cardiogenesis**
  Mercola, M.
  FEDERATION AMER SOC EXP BIOL.2008

- **Natural and small molecule regulators of stem cell cardiomyocyte differentiation**
  Mercola, M.
  ACADEMIC PRESS LTD- ELSEVIER SCIENCE LTD.2008: 435

- **Signaling Pathways in Embryonic Heart Induction** *CARDIOVASCULAR DEVELOPMENT*
  Guzzo, R. M., Foley, A. C., Ibarra, Y. M., Mercola, M., Bodmer, R.
  2008; 18: 117–51
- **Automated calcium measurements in live cardiomyocytes**
  Charlot, D., Campa, V., Azimi, B., Mercola, M., Ingermanson, R., McDonough, P. M., Price, J. H., IEEE
  IEEE.2008: 316-+
- **Targeting Nanoparticle Probes to Differentiating Stem Cells**
  Cabral-Teixeira, J., Talsky, K., Zhang, L., Maurer, J., Tsuda, M., Chao, Y. S., Prigozhina, N., Price, J., Snyder, E., Mercola, M., Ruoslahti, E., West, M. D., Larocca, et al
  CRC PRESS-TAYLOR & FRANCIS GROUP.2008: 430-+
- **Chemical probes of neural stem cell self-renewal** *NATURE CHEMICAL BIOLOGY*
  Mercola, M.
  2007; 3 (5): 246-247
- **Multiple functions of Cerberus cooperate to induce heart downstream of Nodal** *DEVELOPMENTAL BIOLOGY*
  Foley, A. C., Korol, O., Timmer, A. M., Mercola, M.
  2007; 303 (1): 57-65
- **Cardiac Development of Human Embryonic Stem Cells** *HUMAN STEM CELL MANUAL: A LABORATORY GUIDE*
  Barcova, M., Campa, V. M., Mercola, M., Loring, J. F., Wesselschmidt, R. L., Schwartz, P. H.
  2007: 227–37
- **Toward automated analyses of migration and differentiation in cultured human embryonic stem cells**
  Prigozhina, N. L., Russo, J. A., Pekurovsky, A., Kita-Matsuo, H., Clancy, J. W., Mercola, M., Price, J. H., IEEE
  IEEE.2007: 1104–7
- **Developmental patterning of the cardiac atrioventricular canal by Notch and Hairy-related transcription factors** *DEVELOPMENT*
  Rutenberg, J. B., Fischer, A., Jia, H., Gessler, M., Zhong, T. P., Mercola, M.
  2006; 133 (21): 4381-4390
- **Cryopreservation by slow cooling with DMSO diminished production of Oct-4 pluripotency marker in human embryonic stem cells** *CRYOBIOLOGY*
  Katkov, I. I., Kim, M. S., Bajpai, R., Altman, Y. S., Mercola, M., Loring, J. F., Terskikh, A. V., Snyder, E. Y., Levine, F.
  2006; 53 (2): 194-205
- **Beta-cell differentiation from nonendocrine epithelial cells of the adult human pancreas** *NATURE MEDICINE*
  Hao, E., Tyrberg, B., Itkin-Ansari, P., Lakey, J. R., Geron, I., Monosov, E. Z., Barcova, M., Mercola, M., Levine, F.
  2006; 12 (3): 310-316
- **Embryonic heart induction**
  Foley, A. C., Gupta, R. W., Guzzo, R. M., Korol, O., Mercola, M., Sideman, S., Beyar, R., Landesberg, A.
  BLACKWELL PUBLISHING.2006: 85–96
- **Characterization of miRNA Expression in the Differentiation of Human Embryonic Stem Cells into Cardiomyocytes**
  Nelson, B., Landers, M., Barcova, M., Perera, R., Adams, C., Mercola, M.
  AMER SOC CELL BIOLOGY.2006
- **High-throughput screening for modulators of stem cell differentiation** *MEASURING BIOLOGICAL RESPONSES WITH AUTOMATED MICROSCOPY*
  Bushway, P. J., Mercola, M., Inglese, J.
  2006; 414: 300–316
- **Dkk1 coordinates cell migration with inhibition of beta-catenin signaling.**
  Gupta, R. W., Mercola, M.
  KARGER.2006
- **Natural and small molecule inducers of cardiogenesis**
  Mercola, M., Foley, A. C., Teixeira, J. C., Bushway, P. J., Ibarra, Y., Wei, Z., Kozikowski, A. P., Duester, G., Dawson, M.
  ELSEVIER SCIENCE BV.2005: S12

- **Zebrafish narrowminded disrupts the transcription factor prdm1 and is required for neural crest and sensory neuron specification** *DEVELOPMENTAL BIOLOGY*
  Hernandez-Lagunas, L., Choi, I. F., Kaji, T., Simpson, P., Hershey, C., Zhou, Y., Zon, L., Mercola, M., Artinger, K. B.
  2005; 278 (2): 347–57
- **Heart induction by Wnt antagonists depends on the homeodomain transcription factor Hex** *GENES & DEVELOPMENT*
  Foley, A. C., Mercola, M.
  2005; 19 (3): 387-396
- **Isoxazolyl-serine-based agonists of peroxisome proliferator-activated receptor: Design, synthesis, and effects on cardiomyocyte differentiation** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
  Wei, Z. L., Petukhov, P. A., Bizik, F., Teixeira, J. C., Mercola, M., Volpe, E. A., Glazer, R. I., Willson, T. M., Kozikowski, A. P.
  2004; 126 (51): 16714–15
- **No pancreatic endocrine stem cells?** *NEW ENGLAND JOURNAL OF MEDICINE*
  Levine, F., Mercola, M.
  2004; 351 (10): 1024-1026
- **Heart induction: Embryology to cardiomyocyte regeneration** *TRENDS IN CARDIOVASCULAR MEDICINE*
  Foley, A., Mercola, M.
  2004; 14 (3): 121–25
- **Left-right asymmetry: Nodal points** *JOURNAL OF CELL SCIENCE*
  Mercola, M.
  2003; 116 (16): 3251–57
- **Dkk1 induces heart by stimulating a diffusible intermediary factor**
  Foley, A., Mercola, M.
  ACADEMIC PRESS INC ELSEVIER SCIENCE.2003: 488
- **Dix proteins position the neural plate border and determine adjacent cell fates** *DEVELOPMENT*
  Woda, J. M., Pastagia, J., Mercola, M., Artinger, K. B.
  2003; 130 (2): 331–42
- **Isolation and characterization of Xenopus Hey-1: A downstream mediator of Notch signaling** *DEVELOPMENTAL DYNAMICS*
  Rones, M. S., Woda, J., Mercola, M., McLaughlin, K. A.
  2002; 225 (4): 554–60
- **Asymmetries in H+/K+-ATPase and cell membrane potentials comprise a very early step in left-right patterning** *CELL*
  Levin, M., Thorlin, T., Robinson, K. R., Nogi, T., Mercola, M.
  2002; 111 (1): 77-89
- **REST mRNA expression in normal and regenerating avian auditory epithelium** *HEARING RESEARCH*
  Roberson, D. W., Alosi, J. A., Mercola, M., Cotanche, D. A.
  2002; 172 (1-2): 62–72
- **Wnt antagonism and the initiation of embryonic cardiogenesis**
  Mercola, M.
  FEDERATION AMER SOC EXP BIOL.2002: A1087
- **Dlx proteins are required for development of neural crest derived craniofacial cartilages.**
  Pastagia, J., Woda, J., Artinger, K. B., Mercola, M.
  INT AMER ASSOC DENTAL RESEARCHI A D R/A A D R.2002: A502
- **In vivo electroporation of cDNA into heart tissue: Cell fate control by Notch after linear heart tube stage in the chick.**
  Rutenberg, J. B., Mercola, M.
  ACADEMIC PRESS INC.2001: 281
- **The biology of becoming: Cell fate decisions during embryonic kidney development.**
  McLaughlin, K. A., Rones, M. S., Mercola, M.

ACADEMIC PRESS INC.2001: 205

- **A role for Dlx3 in neural plate border formation.**
  Woda, J. M., Pastagia, J., Artinger, K. B., Mercola, M.
  ACADEMIC PRESS INC.2001: 216–17
- **Wnt antagonism initiates cardiogenesis in Xenopus laevis** *GENES & DEVELOPMENT*
  Schneider, V. A., Mercola, M.
  2001; 15 (3): 304–15
- **TGF-beta superfamily signaling and left-right asymmetry.** *Science's STKE : signal transduction knowledge environment*
  Whitman, M., Mercola, M.
  2001; 2001 (64): re1
- **Left-right asymmetry determination in vertebrates** *ANNUAL REVIEW OF CELL AND DEVELOPMENTAL BIOLOGY*
  Mercola, M., Levin, M.
  2001; 17: 779–805
- **Notch regulates cell fate in the developing pronephros** *DEVELOPMENTAL BIOLOGY*
  McLaughlin, K. A., Rones, M. S., Mercola, M.
  2000; 227 (2): 567–80
- **Expression of connexin 30 in Xenopus embryos and its involvement in hatching gland function** *DEVELOPMENTAL DYNAMICS*
  Levin, M., Mercola, M.
  2000; 219 (1): 96–101
- **Serrate and Notch specify cell fates in the heart field by suppressing cardiomyogenesis** *DEVELOPMENT*
  Rones, M. S., McLaughlin, K. A., Raffin, M., Mercola, M.
  2000; 127 (17): 3865–76
- **Patterning the pronephros: A role for notch signaling in kidney organogenesis**
  McLaughlin, K. A., Rones, M. S., Mercola, M.
  ACADEMIC PRESS INC.2000: 251
- **Notch and serrate specify cell fates in the Xenopus heart field**
  Rones, M. S., McLaughlin, K. A., Mercola, M.
  ACADEMIC PRESS INC.2000: 233
- **Gap junction-mediated transfer of left-right patterning signals.**
  Levin, M., Mercola, M.
  FEDERATION AMER SOC EXP BIOL.2000: A541
- **Subdivision of the cardiac Nkx2.5 expression domain into myogenic and nonmyogenic compartments** *DEVELOPMENTAL BIOLOGY*
  Raffin, M., Leong, L. M., Rones, M. S., Sparrow, D., Mohun, T., Mercola, M.
  2000; 218 (2): 326–40
- **Gap junction-mediated transfer of left-right patterning signals in the early chick blastoderm is upstream of Shh asymmetry in the node** *DEVELOPMENT*
  Levin, M., Mercola, M.
  1999; 126 (21): 4703–14
- **Gap junction-mediated transfer of left-right patterning signals**
  Levin, M., Mercola, M.
  AMER SOC CELL BIOLOGY.1999: 7A
- **Cerberus regulates left-right asymmetry of the embryonic head and heart** *CURRENT BIOLOGY*
  Zhu, L., Marvin, M. J., Gardiner, A., Lassar, A. B., Mercola, M., Stern, C. D., Levin, M.
  1999; 9 (17): 931–38
- **Zebrafish narrowminded suggests a genetic link between formation of neural crest and primary sensory neurons** *DEVELOPMENT*
  Artinger, K. B., Chitnis, A. B., Mercola, M., Driever, W.

1999; 126 (18): 3969–79

- **Spatially distinct head and heart inducers within the Xenopus organizer region** *CURRENT BIOLOGY*
  Schneider, V. A., Mercola, M.
  1999; 9 (15): 800–809
- **Spatially distinct head and heart inducers in the Xenopus organiser**
  Schneider, V. A., Mercola, M.
  ACADEMIC PRESS INC.1999: 230
- **Zebrafish narrowminded is involved in the specification of neural crest and primary sensory neurons**
  Artinger, K. B., Chitnis, A. B., Driever, W., Mercola, M.
  ACADEMIC PRESS INC.1999: 200
- **The role of notch signaling during cardiogenesis**
  Rones, M. S., Mercola, M.
  ACADEMIC PRESS INC.1999: 211
- **Embryological basis for cardiac left-right asymmetry** *SEMINARS IN CELL & DEVELOPMENTAL BIOLOGY*
  Mercola, M.
  1999; 10 (1): 109–16
- **Gap junctions are involved in the early generation of left-right asymmetry** *DEVELOPMENTAL BIOLOGY*
  Levin, M., Mercola, M.
  1998; 203 (1): 90–105
- **PDGF mediates cardiac microvascular communication** *JOURNAL OF CLINICAL INVESTIGATION*
  Edelberg, J. M., Aird, W. C., Wu, W., Rayburn, H., Mamuya, W. S., Mercola, M., Rosenberg, R. D.
  1998; 102 (4): 837–43
- **PDGF: Signaling pathways involved in cellular migration and cell death**
  McLaughlin, K. A., Symes, K., Mercola, M. L.
  ACADEMIC PRESS INC.1998: 224
- **Gap junctions are involved in early determination of left-right asymmetry**
  Levin, M., Mercola, M.
  ACADEMIC PRESS INC.1998: 160
- **Restriction of the heart field**
  Rones, M. S., Raffin, M. J., Mercola, M.
  ACADEMIC PRESS INC.1998: 205
- **The compulsion of chirality: toward an understanding of left-right asymmetry** *GENES & DEVELOPMENT*
  Levin, M., Mercola, M.
  1998; 12 (6): 763–69
- **Small-molecule control of insulin and PDGF receptor signaling and the role of membrane attachment** *CURRENT BIOLOGY*
  Yang, J. X., Symes, K., Mercola, M., Schreiber, S. L.
  1998; 8 (1): 11–18
- **Evolutionary conservation of mechanisms upstream of asymmetric nodal expression: Reconciling chick and Xenopus** *DEVELOPMENTAL GENETICS*
  Levin, M., Mercola, M.
  1998; 23 (3): 185–93
- **Organizer induction determines left-right asymmetry in Xenopus** *DEVELOPMENTAL BIOLOGY*
  Nascone, N., Mercola, M.
  1997; 189 (1): 68–78
- **Organizer induction determines left-right asymmetry**
  Mercola, M., Nascone, N.

ACADEMIC PRESS INC JNL-COMP SUBSCRIPTIONS.1997: S55

- **Spina bifida occulta in Homozygous Patch mouse embryos** *DEVELOPMENTAL DYNAMICS*
  Payne, J., Shibasaki, F., Mercola, M.
  1997; 209 (1): 105–16

- **Distribution and functions of platelet-derived growth factors and their receptors during embryogenesis** *INTERNATIONAL REVIEW OF CYTOLOGY - A SURVEY OF CELL BIOLOGY, VOL 172*
  Ataliotis, P., Mercola, M., Jeon, K. W.
  1997; 172: 95–127

- **Endoderm and cardiogenesis - New insights** *TRENDS IN CARDIOVASCULAR MEDICINE*
  Nascone, N., Mercola, M.
  1996; 6 (7): 211–16

- **Embryonic mesoderm cells spread in response to platelet-derived growth factor and signaling by phosphatidylinositol 3-kinase** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Symes, K., Mercola, M.
  1996; 93 (18): 9641–44

- **The role of the organizer in Xenopus left-right asymmetry**
  Nascone, N., Mercola, M.
  ACADEMIC PRESS INC JNL-COMP SUBSCRIPTIONS.1996: C10

- **Cloning and expression of Xenopus CCT gamma, a chaperonin subunit developmentally regulated in neural-derived and myogenic lineages** *DEVELOPMENTAL DYNAMICS*
  Dunn, M. K., Mercola, M.
  1996; 205 (4): 387–94

- **PDGF SIGNALING IS REQUIRED FOR GASTRULATION OF XENOPUS-LAEVIS** *DEVELOPMENT*
  ATALIOTIS, P., SYMES, K., CHOU, M. M., HO, L., MERCOLA, M.
  1995; 121 (9): 3099–3110

- **A DOMINANT-NEGATIVE PDGF RECEPTOR INHIBITS GASTRULATION OF XENOPUS-LAEVIS**
  ATALIOTIS, P., SYMES, K., CHOU, M., HO, L., MERCOLA, M.
  ACADEMIC PRESS INC JNL-COMP SUBSCRIPTIONS.1995: 749

- **CYCLOPAMINE, A STEROIDAL ALKALOID, DISRUPTS DEVELOPMENT OF CRANIAL NEURAL CREST CELLS IN XENOPUS** *DEVELOPMENTAL DYNAMICS*
  DUNN, M. K., MERCOLA, M., MOORE, D. D.
  1995; 202 (3): 255–70

- **AN INDUCTIVE ROLE FOR THE ENDODERM IN XENOPUS CARDIOGENESIS** *DEVELOPMENT*
  NASCONE, N., MERCOLA, M.
  1995; 121 (2): 515–23

- **LOCALIZATION OF PDGF-A AND PDGFR-ALPHA MESSENGER-RNA IN XENOPUS EMBRYOS SUGGESTS SIGNALING FROM NEURAL ECTODERM AND PHARYNGEAL ENDODERM TO NEURAL CREST CELLS** *MECHANISMS OF DEVELOPMENT*
  HO, L., SYMES, K., YORDAN, C., GUDAS, L. J., MERCOLA, M.
  1994; 48 (3): 165–74

- **MORPHOLOGICAL DIFFERENCES IN XENOPUS EMBRYONIC MESODERMAL CELLS ARE SPECIFIED AS AN EARLY RESPONSE TO DISTINCT THRESHOLD CONCENTRATIONS OF ACTIVIN** *DEVELOPMENT*
  SYMES, K., YORDAN, C., MERCOLA, M.
  1994; 120 (8): 2339–46

- **XENOPUS-LAEVIS CELLULAR RETINOIC ACID-BINDING PROTEIN - TEMPORAL AND SPATIAL EXPRESSION PATTERN DURING EARLY EMBRYOGENESIS** *MECHANISMS OF DEVELOPMENT*
  HO, L., MERCOLA, M., GUDAS, L. J.
  1994; 47 (1): 53–64

- **THE XENOPUS PLATELET-DERIVED GROWTH-FACTOR ALPHA-RECEPTOR - CDNA CLONING AND DEMONSTRATION THAT MESODERM INDUCTION ESTABLISHES THE LINEAGE-SPECIFIC PATTERN OF LIGAND AND RECEPTOR GENE-EXPRESSION** *DEVELOPMENTAL GENETICS*
  JONES, S. D., HO, L., SMITH, J. C., YORDAN, C., STILES, C. D., MERCOLA, M.
  1993; 14 (3): 185–93
- **EXPRESSION OF MOUSE PDGF-A AND PDGF ALPHA-RECEPTOR GENES DURING PREIMPLANTATION AND POSTIMPLANTATION DEVELOPMENT - EVIDENCE FOR A DEVELOPMENTAL SHIFT FROM AN AUTOCRINE TO A PARACRINE MODE OF ACTION** *MECHANISMS OF DEVELOPMENT*
  PALMIERI, S. L., PAYNE, J., STILES, C. D., BIGGERS, J. D., MERCOLA, M.
  1992; 39 (3): 181–91
- **RAPID, COMPLETE AND REVERSIBLE TRANSFORMATION BY V-SIS PRECEDES IRREVERSIBLE TRANSFORMATION** *ONCOGENE*
  MERCOLA, D., CARPENTER, P. M., GROVERBARDWICK, A., MERCOLA, M.
  1992; 7 (9): 1793–1803
- **THE REGULATION OF PDGF AND PDGF RECEPTOR EXPRESSION IN F9 TERATOCARCINOMA CELLS**
  WANG, C., MERCOLA, M., STILES, C. D.
  WILEY.1991: A1623
- **PLATELET-DERIVED GROWTH-FACTOR RECEPTOR ALPHA-SUBUNIT GENE (PDGFRA) IS DELETED IN THE MOUSE PATCH (PH) MUTATION** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  STEPHENSON, D. A., MERCOLA, M., ANDERSON, E., WANG, C. Y., STILES, C. D., BOWENPOPE, D. F., CHAPMAN, V. M.
  1991; 88 (1): 6–10
- **Reversible transformation by v-sis: a model cell line for analysis of transformation by antisense methods.** *Antisense research and development*
  Carpenter, P. M., Mercola, M., Mercola, D.
  1991; 1 (3): 289–95
- **DOMINANT-NEGATIVE MUTANTS OF A PLATELET-DERIVED GROWTH-FACTOR GENE** *GENES & DEVELOPMENT*
  MERCOLA, M., DEININGER, P. L., SHAMAH, S. M., PORTER, J., WANG, C. Y., STILES, C. D.
  1990; 4 (12B): 2333–41
- **SELECTIVE EXPRESSION OF PDGF-A AND ITS RECEPTOR DURING EARLY MOUSE EMBRYOGENESIS** *DEVELOPMENTAL BIOLOGY*
  MERCOLA, M., WANG, C. Y., KELLY, J., BROWNLEE, C., JACKSONGRUSBY, L., STILES, C., BOWENPOPE, D.
  1990; 138 (1): 114–22
- **PLATELET-DERIVED GROWTH FACTOR-A CHAIN IS MATERNALLY ENCODED IN XENOPUS EMBRYOS** *SCIENCE*
  MERCOLA, M., MELTON, D. A., STILES, C. D.
  1988; 241 (4870): 1223–25
- **GROWTH-FACTOR SUPERFAMILIES AND MAMMALIAN EMBRYOGENESIS** *DEVELOPMENT*
  MERCOLA, M., STILES, C. D.
  1988; 102 (3): 451–60
- **STRONG TRANSCRIPTIONAL ACTIVATION OF TRANSLOCATED C-MYC GENES OCCURS WITHOUT A STRONG NEARBY ENHANCER OR PROMOTER** *NUCLEIC ACIDS RESEARCH*
  KAKKIS, E., MERCOLA, M., CALAME, K.
  1988; 16 (1): 77–96
- **DIFFERENTIAL COLONY HYBRIDIZATION - MOLECULAR-CLONING FROM A ZERO DATA-BASE** *METHODS IN ENZYMOLOGY*
  COCHRAN, B. H., ZUMSTEIN, P., ZULLO, J., ROLLINS, B., MERCOLA, M., STILES, C. D.
  1987; 147: 64–85
- **IMMUNOGLOBULIN HEAVY-CHAIN ENHANCER REQUIRES ONE OR MORE TISSUE-SPECIFIC FACTORS** *SCIENCE*
  MERCOLA, M., GOVERMAN, J., MIRELL, C., CALAME, K.
  1985; 227 (4684): 266–70
- **TRANSCRIPTIONAL ENHANCER ELEMENTS IN THE MOUSE IMMUNOGLOBULIN HEAVY-CHAIN LOCUS** *SCIENCE*
  MERCOLA, M., WANG, X. F., OLSEN, J., CALAME, K.

1983; 221 (4611): 663–65