

Stanford



Michael F. Clarke, M.D.

Karel H. and Avice N. Beekhuis Professor of Cancer Biology
Medicine - Oncology

 Curriculum Vitae available Online

CONTACT INFORMATION

• Administrative Contact

Kristine Hidde - Administrative Associate

Email hidde@stanford.edu

Bio

ACADEMIC APPOINTMENTS

- Professor, Medicine - Oncology
- Member, Bio-X
- Member, Institute for Stem Cell Biology and Regenerative Medicine
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- American Association of Physicians, - (-)
- American Society of Clinical Investigation, - (-)
- Rackham Award, University of Michigan (-)

PROFESSIONAL EDUCATION

- M.D., Indiana University (1977)
- B.A., Indiana University (1973)

LINKS

- Clarke Lab Site: <http://med.stanford.edu/stemcell/institutefaculty/clarke.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Dr. Michael F. Clarke is the Karel and Avice Beekhuis Professor in Cancer Biology and Associate Director of the Stanford Institute for Stem Cell and Regenerative Medicine. He is a board certified oncologist with extensive training in molecular biology and stem cell biology. In addition to his clinical duties in the division of Oncology, Dr. Clarke maintains a laboratory focused on two areas of research: i) the control of self-renewal of normal stem cells and their malignant counterparts; and ii) the identification and characterization of cancer stem cells. The main objectives of his laboratory are to pursue

how perturbations in the self-renewal machinery contribute to human diseases and to use the findings to aid the development of more effective treatment therapies.

His laboratory has a long history of innovative findings which include: the first to demonstrate that inappropriate expression of a normal gene could cause a tumor; the first to identify a dominant-negative splice variant of an oncogene; the first to identify a molecular regulator of stem cell self-renewal; the first to identify a solid tumor stem cell (in breast cancer) and the first to demonstrate a molecular linkage of a self-renewal program used by normal mammary stem cells and breast cancer cells. Recently, his group described a molecular mechanism that confers resistance to radiation in breast cancer stem cells.

His group was the first to discover that the proto-oncogene Bmi-1 regulates stem cell self-renewal via an epigenetic mechanism. By examining the pathways upstream and downstream of Bmi1, hence the molecular pathways that regulate self-renewal, his laboratory found that USP16, a protein that dampens Bmi1 signals, causes a stem cell defect in various stem cells in Down's syndrome, including neural stem cells.

Since cancers arise as a result of a series of genetic mutations, a better understanding of the consequences of these mutations on the underlying biology of the neoplastic cells will help the development of more effective therapies. Solid tumors such as breast cancers contain heterogeneous populations of neoplastic cells. Through collaboration, his group pioneered and organized a team to use single cell genomics to understand complex tissue hierarchy in normal and malignant cells present in human breast, colon and head and neck cancer tumors. Only a small minority of cancer cells had the capacity to form new tumors in a xenograft model. This tumorigenic cell population could be identified prospectively and consistently had definable and identical phenotype. The tumorigenic cells displayed stem cell-like properties in that they were capable of generating new tumors containing additional stem cells as well as regenerating the phenotypically mixed populations of non-tumorigenic cells present in the original tumor. Effective treatment of cancer will require therapeutic strategies that are able to target and eliminate this tumorigenic subset of cells. His laboratory is pursuing the identification of cancer stem cells in other tumors so that they can be studied. Finally, the laboratory is actively pursuing how cancer stem cells self-renew to maintain themselves and escape the genetic constraints on unlimited self-renewal that regulate normal stem cell numbers. Differences in self-renewal pathways between normal and malignant stem cells could be targeted by new therapeutic agents to eliminate cancer stem cells.

Teaching

STANFORD ADVISEES

Orals Evaluator

Minji Kang

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cancer Biology (Phd Program)
- Stem Cell Biology and Regenerative Medicine (Phd Program)

Publications

PUBLICATIONS

- **Inhibiting USP16 rescues stem cell aging and memory in an Alzheimer's model.** *eLife*
Reinitz, F., Chen, E. Y., Nicolis di Robilant, B., Chuluun, B., Antony, J., Jones, R. C., Gubbi, N., Lee, K., Ho, W. H., Kolluru, S. S., Qian, D., Adorno, M., Piltti, et al
2022; 11
- **LEFTY1 Is a Dual-SMAD Inhibitor that Promotes Mammary Progenitor Growth and Tumorigenesis.** *Cell stem cell*

Zabala, M., Lobo, N. A., Antony, J., Heitink, L. S., Gulati, G. S., Lam, J., Parashurama, N., Sanchez, K., Adorno, M., Sikandar, S. S., Kuo, A. H., Qian, D., Kalisky, et al
2020

- **Clinical and Therapeutic Implications of Cancer Stem Cells.** *The New England journal of medicine*
Clarke, M. F.
2019; 380 (23): 2237–45
- **Clinical and Therapeutic Implications of Cancer Stem Cells. Reply.** *The New England journal of medicine*
Clarke, M. F.
2019; 381 (10): e19
- **Bcl11b maintains the long-term mammary stem cell and is crucial for drug resistance in breast cancer.**
Cai, S., Kalisky, T., Dalerba, P., Clarke, M., Stanford Univ
AMER ASSOC CANCER RESEARCH.2018: 23
- **Single-cell transcriptomics of 20 mouse organs creates a Tabula Muris.** *Nature*
2018; 562 (7727): 367–72
- **Stromal Gli2 activity coordinates a niche signaling program for mammary epithelial stem cells** *SCIENCE*
Zhao, C., Cai, S., Shin, K., Lim, A., Kalisky, T., Lu, W., Clarke, M. F., Beachy, P. A.
2017; 356 (6335): 284-?
- **A Quiescent Bcl11b High Stem Cell Population Is Required for Maintenance of the Mammary Gland.** *Cell stem cell*
Cai, S., Kalisky, T., Sahoo, D., Dalerba, P., Feng, W., Lin, Y., Qian, D., Kong, A., Yu, J., Wang, F., Chen, E. Y., Scheeren, F. A., Kuo, et al
2017; 20 (2): 247-260 e5
- **Targeted chromatin ligation, a robust epigenetic profiling technique for small cell numbers.** *Nucleic acids research*
Zarnegar, M. A., Reinitz, F. n., Newman, A. M., Clarke, M. F.
2017; 45 (17): e153
- **CDX2 as a Prognostic Biomarker in Colon Cancer.** *New England journal of medicine*
Dalerba, P., Sahoo, D., Clarke, M. F.
2016; 374 (22): 2184-?
- **CDX2 as a Prognostic Biomarker in Stage II and Stage III Colon Cancer** *NEW ENGLAND JOURNAL OF MEDICINE*
Dalerba, P., Sahoo, D., Paik, S., Guo, X., Yothers, G., Song, N., Wilcox-Fogel, N., Forgo, E., Rajendran, P. S., Miranda, S. P., Hisamori, S., Hutchison, J., Kalisky, et al
2016; 374 (3): 211-222
- **CDX2 as a Prognostic Biomarker in Stage II and Stage III Colon Cancer.** *The New England journal of medicine*
Dalerba, P., Sahoo, D., Paik, S., Guo, X., Yothers, G., Song, N., Wilcox-Fogel, N., Forgó, E., Rajendran, P. S., Miranda, S. P., Hisamori, S., Hutchison, J., Kalisky, et al
2016; 374 (3): 211-22
- **A cell-intrinsic role for TLR2-MYD88 in intestinal and breast epithelia and oncogenesis.** *Nature cell biology*
Scheeren, F. A., Kuo, A. H., van Weele, L. J., Cai, S., Glykofridis, I., Sikandar, S. S., Zabala, M., Qian, D., Lam, J. S., Johnston, D., Volkmer, J. P., Sahoo, D., van de Rijn, et al
2014; 16 (12): 1238-1248
- **A cell-intrinsic role for TLR2 MYD88 in intestinal and breast epithelia and oncogenesis** *NATURE CELL BIOLOGY*
Scheeren, F. A., Kuo, A. H., van Weele, L. J., Cai, S., Glykofridis, I., Sikandar, S. S., Zabala, M., Qian, D., Lam, J. S., Johnston, D., Volkmer, J. P., Sahoo, D., van de Rijn, et al
2014; 16 (12): 1238-U245
- **Usp16 contributes to somatic stem-cell defects in Down's syndrome.** *Nature*
Adorno, M., Sikandar, S., Mitra, S. S., Kuo, A., Nicolis Di Robilant, B., Haro-Acosta, V., Ouadah, Y., Quarta, M., Rodriguez, J., Qian, D., Reddy, V. M., Cheshier, S., Garner, et al
2013; 501 (7467): 380-384
- **Identification of a cKit(+) Colonic Crypt Base Secretory Cell That Supports Lgr5(+) Stem Cells in Mice** *GASTROENTEROLOGY*

- Rothenberg, M. E., Nusse, Y., Kalisky, T., Lee, J. J., Dalerba, P., Scheeren, F., Lobo, N., Kulkarni, S., Sim, S., Qian, D., Beachy, P. A., Pasricha, P. J., Quake, et al
2012; 142 (5): 1195-?
- **Single-cell dissection of transcriptional heterogeneity in human colon tumors** *NATURE BIOTECHNOLOGY*
Dalerba, P., Kalisky, T., Sahoo, D., Rajendran, P. S., Rothenberg, M. E., Leyrat, A. A., Sim, S., Okamoto, J., Johnston, D. M., Qian, D., Zabala, M., Bueno, J., Neff, et al
2011; 29 (12): 1120-U11
 - **Downregulation of miRNA-200c Links Breast Cancer Stem Cells with Normal Stem Cells** *CELL*
Shimono, Y., Zabala, M., Cho, R. W., Lobo, N., Dalerba, P., Qian, D., Diehn, M., Liu, H., Panula, S. P., Chiao, E., Dirbas, F. M., Somlo, G., Pera, et al
2009; 138 (3): 592-603
 - **Association of reactive oxygen species levels and radioresistance in cancer stem cells** *NATURE*
Diehn, M., Cho, R. W., Lobo, N. A., Kalisky, T., Dorie, M. J., Kulp, A. N., Qian, D., Lam, J. S., Ailles, L. E., Wong, M., Joshua, B., Kaplan, M. J., Wapnir, et al
2009; 458 (7239): 780-U123
 - **Long-term haematopoietic reconstitution by Trp53(-/-)p16(Ink4a(-/-))p19(Arf(-/-)) multipotent progenitors** *NATURE*
Akala, O. O., Park, I., Qian, D., Pihajla, M., Becker, M. W., Clarke, M. F.
2008; 453 (7192): 228-U12
 - **A gene signature in breast cancer - Reply** *NEW ENGLAND JOURNAL OF MEDICINE*
Clarke, M. F., Liu, R., Wang, X.
2007; 356 (18): 1888
 - **The prognostic role of a gene signature from tumorigenic breast-cancer cells.** *NEW ENGLAND JOURNAL OF MEDICINE*
Liu, R., Wang, X., Chen, G. Y., Dalerba, P., Gurney, A., Hoey, T., Sherlock, G., Lewicki, J., Shedden, K., Clarke, M. F.
2007; 356 (3): 217-226
 - **Bmi-1 dependence distinguishes neural stem cell self-renewal from progenitor proliferation** *NATURE*
Molofsky, A. V., Pardal, R., Iwashita, T., Park, I. K., Clarke, M. F., Morrison, S. J.
2003; 425 (6961): 962-967
 - **Bmi-1 is required for maintenance of adult self-renewing hematopoietic stem cells** *32nd Annual Meeting of the International-Society-for-Experimental-Hematology*
Park, I., Qian, D., Kiel, M., Becker, M., Prohaska, S., Weissman, I., Morrison, S., Clarke, M.
ELSEVIER SCIENCE INC.2003: 104-
 - **Bmi-1 is required for maintenance of adult self-renewing haematopoietic stem cells** *NATURE*
Park, I. K., Qian, D. L., Kiel, M., Becker, M. W., Pihajla, M., Weissman, I. L., Morrison, S. J., Clarke, M. F.
2003; 423 (6937): 302-305
 - **Prospective identification of tumorigenic breast cancer cells** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Al-Hajj, M., Wicha, M. S., Benito-Hernandez, A., Morrison, S. J., Clarke, M. F.
2003; 100 (7): 3983-3988
 - **Mesenchymal tumor cells drive adaptive resistance of Trp53(-/-) breast tumor cells to inactivated mutant Kras.** *Molecular oncology*
van Weele, L. J., Djomehri, S. I., Cai, S., Antony, J., Sikandar, S. S., Qian, D., Ho, W. H., West, R., Scheeren, F. A., Clarke, M. F.
2022
 - **Publisher Correction: Cell types of origin of the cell-free transcriptome.** *Nature biotechnology*
Vorperian, S. K., Moufarrej, M. N., Tabula Sapiens Consortium, Quake, S. R., Jones, R. C., Karkani, J., Krasnow, M., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaupt, B., Brown, P., et al
2022
 - **Molecular hallmarks of heterochronic parabiosis at single-cell resolution.** *Nature*
Palovics, R., Keller, A., Schaum, N., Tan, W., Fehlmann, T., Borja, M., Kern, F., Bonanno, L., Calcuttawala, K., Webber, J., McGeever, A., Tabula Muris Consortium, Luo, J., et al
2022

- **Cell types of origin of the cell-free transcriptome.** *Nature biotechnology*
Vorperian, S. K., Moufarrej, M. N., Tabula Sapiens Consortium, Quake, S. R., Jones, R. C., Karknias, J., Krasnow, M., Pisco, A. O., Quake, S. R., Salzman, J., Yosef, N., Bulthaupt, B., Brown, P., et al
2022
- **RNA splicing programs define tissue compartments and cell types at single-cell resolution** *ELIFE*
Olivieri, J., Dehghannasiri, R., Wang, P. L., Jang, S., de Morree, A., Tan, S. Y., Ming, J., Wu, A., Consortium, T., Quake, S. R., Krasnow, M. A., Salzman, J.
2021; 10
- **TACH101, a first-in-class pan inhibitor of KDM4 histone lysine demethylases.**
Yoo, S., Chandhasin, C., Del Rosario, J. R., Chen, Y. K., Stafford, J., Quake, S., Perabo, F., Clarke, M. F.
AMER ASSOC CANCER RESEARCH.2021
- **Inhibition of histone lysine demethylases with TACH101, a first-in-class pan-inhibitor of KDM4.**
Chandhasin, C., Yoo, S., Del Rosario, J., Chen, Y. K., Stafford, J., Perabo, F., Clarke, M. F.
LIPPINCOTT WILLIAMS & WILKINS.2021
- **Pharmacologic characterization of TACH101, a first-in-class KDM4 inhibitor for development as a cancer therapeutic.**
Yoo, S., Chandhasin, C., Del Rosario, J., Chen, Y. K., Stafford, J., Perabo, F., Clarke, M. F.
LIPPINCOTT WILLIAMS & WILKINS.2021
- **Depletion of Trp53 and Cdkn2a Does Not Promote Self-Renewal in the Mammary Gland but Amplifies Proliferation Induced by TNF- α .** *Stem cell reports*
van Weele, L. J., Scheeren, F. A., Cai, S. n., Kuo, A. H., Qian, D. n., Ho, W. H., Clarke, M. F.
2021
- **Single-cell transcriptional diversity is a hallmark of developmental potential.** *Science (New York, N.Y.)*
Gulati, G. S., Sikandar, S. S., Wesche, D. J., Manjunath, A. n., Bharadwaj, A. n., Berger, M. J., Ilagan, F. n., Kuo, A. H., Hsieh, R. W., Cai, S. n., Zabala, M. n., Scheeren, F. A., Lobo, et al
2020; 367 (6476): 405–11
- **Ageing hallmarks exhibit organ-specific temporal signatures.** *Nature*
Schaum, N. n., Lehallier, B. n., Hahn, O. n., Pálovics, R. n., Hosseinzadeh, S. n., Lee, S. E., Sit, R. n., Lee, D. P., Losada, P. M., Zardeneta, M. E., Fehlmann, T. n., Webber, J. T., McGeever, et al
2020
- **Northstar enables automatic classification of known and novel cell types from tumor samples.** *Scientific reports*
Zanini, F. n., Berghuis, B. A., Jones, R. C., Nicolis di Robilant, B. n., Nong, R. Y., Norton, J. A., Clarke, M. F., Quake, S. R.
2020; 10 (1): 15251
- **A single-cell transcriptomic atlas characterizes ageing tissues in the mouse.** *Nature*
2020
- **Clinical and Therapeutic Implications of Cancer Stem Cells Reply** *NEW ENGLAND JOURNAL OF MEDICINE*
Clarke, M. F.
2019; 381 (10): E19-+
- **Solid tumor cancer stem cells: From bench to bedside**
Clarke, M. F.
AMER ASSOC CANCER RESEARCH.2019
- **ASXL1 regulates cellular differentiation and initiates tumorigenesis in colon**
Isobe, T., Zarneger, M. A., Matsubara, J., Abdel-Wahab, O., Clarke, M. F.
WILEY.2018: 342
- **Usp16 modulates Wnt signaling in primary tissues through Cdkn2a regulation.** *Scientific reports*
Adorno, M., di Robilant, B. N., Sikandar, S. S., Acosta, V. H., Antony, J., Heller, C. H., Clarke, M. F.
2018; 8 (1): 17506

- **Usp16 modulates Wnt signaling in primary tissues through Cdkn2a regulation** *SCIENTIFIC REPORTS*
Adorno, M., di Robilant, B., Sikandar, S., Acosta, V., Antony, J., Heller, C. H., Clarke, M. F.
2018; 8
- **Serially transplantable mammary epithelial cells express the Thy-1 antigen.** *Breast cancer research : BCR*
Lobo, N. A., Zabala, M., Qian, D., Clarke, M. F.
2018; 20 (1): 121
- **Serially transplantable mammary epithelial cells express the Thy-1 antigen** *BREAST CANCER RESEARCH*
Lobo, N., Zabala, M., Qian, D., Clarke, M. F.
2018; 20
- **The DLK1-DIO3 imprinted region regulates long-term proliferation in normal and malignant breast epithelium**
Zabala, M., Lobo, N. A., Seoane, J. A., Stelzer, Y., Luong, A. V., Isobe, T., Zarnegar, M. A., Watanabe, N., Antonana, S., Lam, J., Qian, D., Sikandar, S. S., Kuo, et al
AMER ASSOC CANCER RESEARCH.2018: 95
- **Characterizing the role of the nuclear coactivator AIB1 in triple-negative breast cancer.**
Cai, S., Kalisky, T., Dalerba, P., Clarke, M., Stanford Univ
AMER ASSOC CANCER RESEARCH.2018: 42-43
- **Effect of ASXL1 on the stemness of colorectal cancer initiating cells.**
Isobe, T., Zarnegar, M. A., Abdel-Wahab, O., Clarke, M. F.
AMER SOC CLINICAL ONCOLOGY.2018
- **A CD47-associated super-enhancer links pro-inflammatory signalling to CD47 upregulation in breast cancer** *NATURE COMMUNICATIONS*
Betancur, P. A., Abraham, B. J., Yiu, Y. Y., Willingham, S. B., Khameneh, F., Zarnegar, M., Kuo, A. H., McKenna, K., Kojima, Y., Leeper, N. J., Ho, P., Gip, P., Swigut, et al
2017; 8
- **Colorectal Cancer Liver Metastasis: Evolving Paradigms and Future Directions.** *Cellular and molecular gastroenterology and hepatology*
Zarour, L. R., Anand, S., Billingsley, K. G., Bisson, W. H., Cercek, A., Clarke, M. F., Coussens, L. M., Gast, C. E., Geltzeiler, C. B., Hansen, L., Kelley, K. A., Lopez, C. D., Rana, et al
2017; 3 (2): 163-173
- **Role of epithelial to mesenchymal transition associated genes in mammary gland regeneration and breast tumorigenesis.** *Nature communications*
Sikandar, S. S., Kuo, A. H., Kalisky, T. n., Cai, S. n., Zabala, M. n., Hsieh, R. W., Lobo, N. A., Scheeren, F. A., Sim, S. n., Qian, D. n., Dirbas, F. M., Somlo, G. n., Quake, et al
2017; 8 (1): 1669
- **Control of inflammation by stromal Hedgehog pathway activation restrains colitis.** *Proceedings of the National Academy of Sciences of the United States of America*
Lee, J. J., Rothenberg, M. E., Seeley, E. S., Zimdahl, B., Kawano, S., Lu, W., Shin, K., Sakata-Kato, T., Chen, J. K., Diehn, M., Clarke, M. F., Beachy, P. A.
2016
- **KIT Signaling Promotes Growth of Colon Xenograft Tumors in Mice and Is Up-Regulated in a Subset of Human Colon Cancers** *GASTROENTEROLOGY*
Chen, E. C., Karl, T. A., Kalisky, T., Gupta, S. K., O'Brien, C. A., Longacre, T. A., De Rijn, M. V., Quake, S. R., Clarke, M. F., Rothenberg, M. E.
2015; 149 (3): 705-?
- **KIT Signaling Promotes Growth of Colon Xenograft Tumors in Mice and Is Up-Regulated in a Subset of Human Colon Cancers.** *Gastroenterology*
Chen, E. C., Karl, T. A., Kalisky, T., Gupta, S. K., O'Brien, C. A., Longacre, T. A., van de Rijn, M., Quake, S. R., Clarke, M. F., Rothenberg, M. E.
2015; 149 (3): 705-17 e2
- **miR-142 regulates the tumorigenicity of human breast cancer stem cells through the canonical WNT signaling pathway** *ELIFE*
Isobe, T., Hisamori, S., Hogan, D. J., Zabala, M., Hendrickson, D. G., Dalerba, P., Cai, S., Scheeren, F., Kuo, A. H., Sikandar, S. S., Lam, J. S., Qian, D., Dirbas, et al
2014; 3

- **Regulation of normal and cancer stem cell self renewal and senescence by USP16**
Clarke, M. F.
AMER ASSOC CANCER RESEARCH.2014
- **Quantitative assessment of single-cell RNA-sequencing methods.** *Nature methods*
Wu, A. R., Neff, N. F., Kalisky, T., Dalerba, P., Treutlein, B., Rothenberg, M. E., Mburu, F. M., Mantalas, G. L., Sim, S., Clarke, M. F., Quake, S. R.
2014; 11 (1): 41-46
- **Cancer Stem Cells Foreword** *CANCER STEM CELLS*
Clarke, M. F., Clevers, H., Eaves, C. J., Weinberg, R. A.
edited by Rajasekhar, V. K.
2014: XXI-XXII
- **miR-142 regulates the tumorigenicity of human breast cancer stem cells through the canonical WNT signaling pathway.** *eLife*
Isobe, T., Hisamori, S., Hogan, D. J., Zabala, M., Hendrickson, D. G., Dalerba, P., Cai, S., Scheeren, F., Kuo, A. H., Sikandar, S. S., Lam, J. S., Qian, D., Dirbas, et al
2014; 3
- **Quantitative assessment of single-cell RNA-sequencing methods.** *Nature methods*
Wu, A. R., Neff, N. F., Kalisky, T., Dalerba, P., Treutlein, B., Rothenberg, M. E., Mburu, F. M., Mantalas, G. L., Sim, S., Clarke, M. F., Quake, S. R.
2014; 11 (1): 41-46
- **Usp16 contributes to somatic stem-cell defects in Down's syndrome.** *Nature*
Adorno, M., Sikandar, S., Mitra, S. S., Kuo, A., Nicolis Di Robilant, B., Haro-Acosta, V., Ouadah, Y., Quarta, M., Rodriguez, J., Qian, D., Reddy, V. M., Cheshier, S., Garner, et al
2013; 501 (7467): 380-384
- **Oncogenic miRNAs and the perils of losing control of a stem cell's epigenetic identity.** *Cell stem cell*
Dalerba, P., Clarke, M. F.
2013; 13 (1): 5-6
- **Identifying the metastatic seeds of breast cancer.** *Nature biotechnology*
Kuo, A. H., Clarke, M. F.
2013; 31 (6): 504-505
- **Intravital multiphoton imaging reveals multicellular streaming as a crucial component of in vivo cell migration in human breast tumors.** *Intravital*
Patsialou, A., Bravo-Cordero, J. J., Wang, Y., Entenberg, D., Liu, H., Clarke, M., Condeelis, J. S.
2013; 2 (2)
- **Intravital multiphoton imaging reveals multicellular streaming as a crucial component of in vivo cell migration in human breast tumors**
Patsialou, A., Bravo-Cordero, J., Wang, Y., Liu, H., Clarke, M. F., Condeelis, J. S.
AMER ASSOC CANCER RESEARCH.2013
- **Deregulation of stem cell self-renewal pathways in cancer**
Clarke, M.
AMER ASSOC CANCER RESEARCH.2013
- **MicroRNA-30c inhibits human breast tumour chemotherapy resistance by regulating TWF1 and IL-11** *NATURE COMMUNICATIONS*
Bockhorn, J., Dalton, R., Nwachukwu, C., Huang, S., Prat, A., Yee, K., Chang, Y., Huo, D., Wen, Y., Swanson, K. E., Qiu, T., Lu, J., Park, et al
2013; 4
- **MicroRNA-30c targets cytoskeleton genes involved in breast cancer cell invasion** *BREAST CANCER RESEARCH AND TREATMENT*
Bockhorn, J., Yee, K., Chang, Y., Prat, A., Huo, D., Nwachukwu, C., Dalton, R., Huang, S., Swanson, K. E., Perou, C. M., Olopade, O. I., Clarke, M. F., Greene, et al
2013; 137 (2): 373-382
- **Innate immune response to homologous rotavirus infection in the small intestinal villous epithelium at single-cell resolution** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Sen, A., Rothenberg, M. E., Mukherjee, G., Feng, N., Kalisky, T., Nair, N., Johnstone, I. M., Clarke, M. F., Greenberg, H. B.

2012; 109 (50): 20667-20672

- **Remodeling of Endogenous Mammary Epithelium by Breast Cancer Stem Cells** *STEM CELLS*
Parashurama, N., Lobo, N. A., Ito, K., Mosley, A. R., Habte, F. G., Zabala, M., Smith, B. R., Lam, J., Weissman, I. L., Clarke, M. F., Gambhir, S. S.
2012; 30 (10): 2114-2127
- **Effect of stimulation of natural killer cells with an anti-CD137 mAb on the efficacy of trastuzumab, cetuximab, and rituximab** *48th Annual Meeting of the American-Society-of-Clinical-Oncology (ASCO)*
Kohrt, H. E., Houot, R., Weiskopf, K., Goldstein, M., Lund, P., Scheeren, F., Czerwinski, D., Colevas, A. D., Weng, W., Clarke, M. F., Carlson, R. W., Sunwoo, J., Tedder, et al
AMER SOC CLINICAL ONCOLOGY.2012
- **The CD47-signal regulatory protein alpha (SIRPa) interaction is a therapeutic target for human solid tumors** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Willingham, S. B., Volkmer, J., Gentles, A. J., Sahoo, D., Dalerba, P., Mitra, S. S., Wang, J., Contreras-Trujillo, H., Martin, R., Cohen, J. D., Lovelace, P., Scheeren, F. A., Chao, et al
2012; 109 (17): 6662-6667
- **MicroRNAs regulate breast cancer stem cells and spontaneous metastases in orthotopic xenograft models**
Liu, H., Bockhorn, J., Dalton, R., Nwachukwu, C., Prat, A., Yee, K., Huang, S., Swanson, K., Perou, C. M., Olopade, O. I., Clarke, M. F., Greene, G. L.
AMER ASSOC CANCER RESEARCH.2012
- **MicroRNA-203 restricts the proliferation capacity of normal colon and colon cancer stem cells by regulating the expression of Tcf4**
Hisamori, S., Dalerba, P., Shimono, Y., Rothenberg, M. E., Zabara, M., Cai, S., Qian, D., Clarke, M. F.
AMER ASSOC CANCER RESEARCH.2012
- **Stimulation of natural killer cells with a CD137-specific antibody enhances trastuzumab efficacy in xenotransplant models of breast cancer** *JOURNAL OF CLINICAL INVESTIGATION*
Kohrt, H. E., Houot, R., Weiskopf, K., Goldstein, M. J., Scheeren, F., Czerwinski, D., Colevas, A. D., Weng, W., Clarke, M. F., Carlson, R. W., Stockdale, F. E., Mollick, J. A., Chen, et al
2012; 122 (3): 1066-1075
- **Removal of lactate dehydrogenase-elevating virus from human-in-mouse breast tumor xenografts by cell-sorting** *JOURNAL OF VIROLOGICAL METHODS*
Liu, H., Bockhorn, J., Dalton, R., Chang, Y., Qian, D., Zitzow, L. A., Clarke, M. F., Greene, G. L.
2011; 173 (2): 266-270
- **Identification of miRNAs that regulate breast cancer stem cells and spontaneous metastases in orthotopic mouse models**
Liu, H., Bockhorn, J., Dalton, R., Olopade, O. F., Clarke, M. F., Greene, G. L.
AMER ASSOC CANCER RESEARCH.2011
- **MicroRNAs regulating breast cancer stem cells and metastasis**
Liu, H., Shimono, Y., Bockhorn, J., Olopade, F., Greene, G., Clarke, M. F.
SPRINGER.2011: 177-78
- **Cancer stem cells from human breast tumors are involved in spontaneous metastases in orthotopic mouse models** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Liu, H., Patel, M. R., Prescher, J. A., Patsialou, A., Qian, D., Lin, J., Wen, S., Chang, Y., Bachmann, M. H., Shimono, Y., Dalerba, P., Adorno, M., Lobo, et al
2010; 107 (42): 18115-18120
- **The Myc Connection: ES Cells and Cancer** *CELL*
Rothenberg, M. E., Clarke, M. F., Diehn, M.
2010; 143 (2): 184-186
- **DLL4 Blockade Inhibits Tumor Growth and Reduces Tumor-Initiating Cell Frequency** *CELL STEM CELL*
Hoey, T., Yen, W., Axelrod, F., Basi, J., Donigian, L., Dylla, S., Fitch-Bruhns, M., Lazetic, S., Park, I., Sato, A., Satyal, S., Wang, X., Clarke, et al
2009; 5 (2): 168-177
- **RADIATION THERAPY ONCOLOGY GROUP TRANSLATIONAL RESEARCH PROGRAM STEM CELL SYMPOSIUM: INCORPORATING STEM CELL HYPOTHESES INTO CLINICAL TRIALS** *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS*

- Woodward, W. A., Bristow, R. G., Clarke, M. F., Coppes, R. P., Cristofanilli, M., Duda, D. G., Fike, J. R., Hambardzumyan, D., Hill, R. P., Jordan, C. T., Milas, L., Pajonk, F., Curran, et al
2009; 74 (5): 1580-1591
- **Automated microfluidic chromatin immunoprecipitation from 2,000 cells** *LAB ON A CHIP*
Wu, A. R., Hiatt, J. B., Lu, R., Attema, J. L., Lobo, N. A., Weissman, I. L., Clarke, M. F., Quake, S. R.
2009; 9 (10): 1365-1370
 - **Optimized imaging of the growth and metastasis of human breast cancer stem cells in immunodeficient mice**
Liu, H., Patel, M., Prescher, J., Qian, D., Dalerba, P., Lin, J., Shimono, Y., Dirbas, F., Contag, C., Gambhir, S., Clarke, M.
AMER ASSOC CANCER RESEARCH.2009
 - **What can we learn about self renewal and drug resistance from the isolation of epithelial tumor stem cells?**
Clarke, M.
AMER ASSOC CANCER RESEARCH.2009
 - **Therapeutic Implications of the Cancer Stem Cell Hypothesis** *SEMINARS IN RADIATION ONCOLOGY*
Diehn, M., Cho, R. W., Clarke, M. F.
2009; 19 (2): 78-86
 - **Dysregulated gene expression networks in human acute myelogenous leukemia stem cells** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Majeti, R., Becker, M. W., Tian, Q., Lee, T. M., Yan, X., Liu, R., Chiang, J., Hood, L., Clarke, M. F., Weissman, I. L.
2009; 106 (9): 3396-3401
 - **Identification of Conserved Gene Expression Programs in Epithelial Cancer Stem Cells** *51st Annual Meeting of the American-Society-for-Radiation-Oncology (ASTRO)*
Diehn, M., Cho, R. W., Ailles, L., Lam, J. S., Kaplan, M. J., Somlo, G., Weissman, I. L., Clarke, M. F.
ELSEVIER SCIENCE INC.2009: S544-S545
 - **Implications of Cancer Stem Cells for Tumor Metastasis** *FROM LOCAL INVASION TO METASTATIC CANCER: INVOLVEMENT OF DISTANT SITES THROUGH THE LYMPHOVASCULAR SYSTEM*
Kalani, M. A., Dalerba, P., Clarke, M. F.
edited by Leong, S. P.
2009: 443-53
 - **Cancer Stem Cells** *ESSENTIALS OF STEM CELL BIOLOGY, 2ND EDITION*
Rothenberg, M., Clarke, M. F.
edited by Lanza, R., Gearhart, J., Hogan, B., Melton, D., Pedersen, R., Thomas, E. D., Thomson, J., Wilmut
2009: 469-83
 - **Colorectal Cancer Stem Cells Are Enriched in Xenogeneic Tumors Following Chemotherapy** *PLOS ONE*
Dylla, S. J., Beviglia, L., Park, I., Chartier, C., Raval, J., Ngan, L., Pickell, K., Aguilar, J., Lazetic, S., Smith-Berdan, S., Clarke, M. F., Hoey, T., Lewicki, et al
2008; 3 (6)
 - **Characterizing metastatic cancer stem cells from human breast cancer**
Liu, H., Qian, D., Lin, J., Lobo, N., Zhang, H., Dalerba, P., Shimono, Y., Diehn, M., Jeffrey, S., Clarke, M.
AMER ASSOC CANCER RESEARCH.2008
 - **Recent advances in cancer stem cells** *CURRENT OPINION IN GENETICS & DEVELOPMENT*
Cho, R. W., Clarke, M. F.
2008; 18 (1): 48-53
 - **Isolation and molecular characterization of cancer stem cells in MMTV-Wnt-1 murine breast tumors** *STEM CELLS*
Cho, R. W., Wang, X., Diehn, M., Shedden, K., Chen, G. Y., Sherlock, G., Gurney, A., Lewicki, J., Clarke, M. F.
2008; 26 (2): 364-371
 - **What can we learn about breast cancer from stem cells?** *5th International Symposium on Hormonal Carcinogenesis*
Clarke, M. F.

SPRINGER-VERLAG BERLIN.2008: 17–22

- **Investigating mechanisms of cancer stem cell radioresistance** *50th Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology (ASTRO)*
Diehn, M., Cho, R. W., Dorie, M., KULP, A., Weissman, I. L., Brown, M., Clarke, M. F.
ELSEVIER SCIENCE INC.2008: S29–S29
- **Cancer stem cells in head and neck squamous carcinoma**
Ailles, L., Prince, M., Joshua, B., Doweck, I., Kaplan, M., Clarke, M., Weissman, I.
AMER ASSOC CANCER RESEARCH.2007: 3630S–3630S
- **Cancer stem cells and tumor metastasis: First steps into uncharted territory** *CELL STEM CELL*
Dalerba, P., Clarke, M. F.
2007; 1 (3): 241-242
- **Bmi-1-green fluorescent protein-knock-in mice reveal the dynamic regulation of Bmi-1 expression in normal and leukemic hematopoietic cells** *STEM CELLS*
Hosen, N., Yamane, T., Muijtjens, M., Pham, K., Clarke, M. F., Weissman, I. L.
2007; 25 (7): 1635-1644
- **Phenotypic characterization of human colorectal cancer stem cells** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Dalerba, P., Dylla, S. J., Park, I., Liu, R., Wang, X., Cho, R. W., Hoey, T., Gurney, A., Huang, E. H., Simeone, D. M., Shelton, A. A., Parmiani, G., Castelli, et al
2007; 104 (24): 10158-10163
- **Identification of pancreatic cancer stem cells** *CANCER RESEARCH*
Li, C., Heidt, D. G., Dalerba, P., Burant, C. F., Zhang, L., Adsay, V., Wicha, M., Clarke, M. F., Simeone, D. M.
2007; 67 (3): 1030-1037
- **Identification of a subpopulation of cells with cancer stem cell properties in head and neck squamous cell carcinoma** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Prince, M. E., Sivanandan, R., Kaczorowski, A., Wolf, G. T., Kaplan, M. J., Dalerba, P., Weissman, I. L., Clarke, M. F., Ailles, L. E.
2007; 104 (3): 973-978
- **Chromosome 5q deletion and epigenetic suppression of the gene encoding alpha-catenin (CTNNA1) in myeloid cell transformation** *NATURE MEDICINE*
Liu, T. X., Becker, M. W., Jelinek, J., Wu, W., Deng, M., Mikhalkevich, N., Hsu, K., Bloomfield, C. D., Stone, R. M., DeAngelo, D. J., Galinsky, I. A., Issa, J., Clarke, et al
2007; 13 (1): 78-83
- **The biology of cancer stem cells** *ANNUAL REVIEW OF CELL AND DEVELOPMENTAL BIOLOGY*
Lobo, N. A., Shimono, Y., Qian, D., Clarke, M. F.
2007; 23: 675-699
- **Cancer stem cells: Models and concepts** *ANNUAL REVIEW OF MEDICINE*
Dalerba, P., Cho, R. W., Clarke, M. F.
2007; 58: 267-284
- **Cancer stem cells and radiotherapy: New insights into tumor radioresistance** *JOURNAL OF THE NATIONAL CANCER INSTITUTE*
Diehn, M., Clarke, M. F.
2006; 98 (24): 1755-1757
- **Bmi-1-green fluorescent protein (GFP)-knock-in mice reveal the dynamic regulation of Bmi-1 expression in normal and leukemic hematopoietic cells.** *48th Annual Meeting of the American-Society-of-Hematology*
Hosen, N., Clarke, M. F., Weissman, I. L.
AMER SOC HEMATOLOGY.2006: 391A–391A
- **Hematopoietic stem cell self-renewal** *CURRENT OPINION IN GENETICS & DEVELOPMENT*
Akala, O. O., Clarke, M. F.
2006; 16 (5): 496-501

- **Cancer stem cells--perspectives on current status and future directions: AACR Workshop on cancer stem cells.** *Cancer research*
Clarke, M. F., Dick, J. E., Dirks, P. B., Eaves, C. J., Jamieson, C. H., Jones, D. L., Visvader, J., Weissman, I. L., Wahl, G. M.
2006; 66 (19): 9339-9344
- **Stem cells: The real culprits in cancer?** *SCIENTIFIC AMERICAN*
Clarke, M. F., Becker, M. W.
2006; 295 (1): 52-59
- **Stem cells and cancer: Two faces of eve** *CELL*
Clarke, M. F., Fuller, M.
2006; 124 (6): 1111-1115
- **Oncogenes, self-renewal and cancer** *PATHOLOGIE BIOLOGIE*
Clarke, M. F.
2006; 54 (2): 109-111
- **A self-renewal assay for cancer stem cells.** *Cancer chemotherapy and pharmacology*
Clarke, M. F.
2005; 56: 64-68
- **Self-renewal and solid-tumor stem cells** *Tandem BMT Meeting 2005*
Clarke, M. F.
ELSEVIER SCIENCE INC.2005: 14-16
- **Epigenetic regulation of normal and cancer stem cells** *5th International Conference on Hematopoietic Stem Cells*
Clarke, M. F.
NEW YORK ACAD SCIENCES.2005: 90-93
- **Neurobiology: At the root of brain cancer** *NATURE*
Clarke, M. F.
2004; 432 (7015): 281-282
- **Self-renewal and solid tumor stem cells** *ONCOGENE*
Al-Hajj, M., Clarke, M. F.
2004; 23 (43): 7274-7282
- **Chronic myelogenous leukemia - Identifying the hydra's heads** *NEW ENGLAND JOURNAL OF MEDICINE*
Clarke, M. F.
2004; 351 (7): 634-636
- **Therapeutic implications of cancer stem cells** *CURRENT OPINION IN GENETICS & DEVELOPMENT*
Al-Hajj, M., Becker, M. W., Wichal, M., Weissman, I., Clarke, M. F.
2004; 14 (1): 43-47
- **Bmi1, stem cells, and senescence regulation** *JOURNAL OF CLINICAL INVESTIGATION*
Park, I. K., Morrison, S. J., Clarke, M. F.
2004; 113 (2): 175-179
- **Applying the principles of stem-cell biology to cancer** *NATURE REVIEWS CANCER*
Pardal, R., Clarke, M. F., Morrison, S. J.
2003; 3 (12): 895-902
- **Stem cells in normal breast development and breast cancer** *CELL PROLIFERATION*
Dontu, G., Al-Hajj, M., Abdallah, W. A., Clarke, M. F., Wicha, M. S.
2003; 36: 59-72
- **In vitro propagation and transcriptional profiling of human mammary stem/progenitor cells** *GENES & DEVELOPMENT*
Dontu, G., Abdallah, W. M., Foley, J. M., Jackson, K. W., Clarke, M. F., Kawamura, M. J., Wicha, M. S.
2003; 17 (10): 1253-1270

- **SLUGging away at cell death** *CANCER CELL*
Becker, M. W., Clarke, M. F.
2002; 2 (4): 249-251
- **New oncolytic adenoviruses with hypoxia- and estrogen receptor-regulated replication** *HUMAN GENE THERAPY*
Hernandez-Alcoceba, R., Pihalja, M., Qian, D. L., Clarke, M. F.
2002; 13 (14): 1737-1750
- **Differential gene expression profiling of adult murine hematopoietic stem cells** *BLOOD*
Park, I. K., He, Y. Q., Lin, F. M., Laerum, O. D., Tian, Q., Bumgarner, R., Klug, C. A., Li, K. J., Kuhr, C., Doyle, M. J., Xie, T., Schummer, M., Sun, et al
2002; 99 (2): 488-498
- **A genetic determinant that specifically regulates the frequency of hematopoietic stem cells** *JOURNAL OF IMMUNOLOGY*
Morrison, S. J., Qian, D., Jerabek, L., Thiel, B. A., Park, I. K., Ford, P. S., Kiel, M. J., Schork, N. J., Weissman, I. L., Clarke, M. F.
2002; 168 (2): 635-642
- **Stem cells, cancer, and cancer stem cells** *NATURE*
Reya, T., Morrison, S. J., Clarke, M. F., Weissman, I. L.
2001; 414 (6859): 105-111
- **Clinical protocol. Purging of autologous stem cell sources with bcl-x(s) adenovirus for women undergoing high-dose chemotherapy for stage IV breast carcinoma.** *Human gene therapy*
Ayash, L. J., Clarke, M., Adams, P., Ferrara, J., Ratanatharathorn, V., Reynolds, C., Roessler, B., Silver, S., Strawderman, M., Uberti, J., Wicha, M.
2001; 12 (16): 2023-2025
- **Regulation of p53 localization** *EUROPEAN JOURNAL OF BIOCHEMISTRY*
Liang, S. H., Clarke, M. F.
2001; 268 (10): 2779-2783
- **Double dose-intensive chemotherapy with autologous stem cell support for relapsed and refractory testicular cancer: the University of Michigan experience and literature review** *BONE MARROW TRANSPLANTATION*
Ayash, L. J., Clarke, M., Silver, S. M., Braun, T., Uberti, J., Ratanatharathorn, V., Reynolds, C., Ferrara, J., Broun, E. R., Adams, P. T.
2001; 27 (9): 939-947
- **Evaluation of a new dual-specificity promoter for selective induction of apoptosis in breast cancer cells** *CANCER GENE THERAPY*
Hernandez-Alcoceba, R., Pihalja, M., Nunez, G., Clarke, M. F.
2001; 8 (4): 298-307
- **Molecular cloning and characterization of a novel regulator of G-protein signaling from mouse hematopoietic stem cells** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Parks, I. K., Klug, C. A., Li, K. J., Jerabek, L., Li, L. H., Nanamori, M., Neubig, R. R., Hood, L., Weissman, I. L., Clarke, M. F.
2001; 276 (2): 915-923
- **A novel, conditionally replicative adenovirus for the treatment of breast cancer that allows controlled replication of E1a-deleted adenoviral vectors** *HUMAN GENE THERAPY*
Hernandez-Alcoceba, R., Pihalja, M., Wicha, M. S., Clarke, M. F.
2000; 11 (14): 2009-2024
- **A bipartite nuclear localization signal is required for p53 nuclear import regulated by a carboxyl-terminal domain** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Liang, S. H., Clarke, M. F.
1999; 274 (46): 32699-32703
- **Germ cell tumor: Differentiation of viable tumor, mature teratoma, and necrotic tissue with FDG PET and kinetic modeling** *RADIOLOGY*
Sugawara, Y., Zasadny, K. R., Grossman, H. B., Francis, I. R., Clarke, M. F., Wahl, R. L.
1999; 211 (1): 249-256
- **The nuclear import of p53 is determined by the presence of a basic domain and its relative position to the nuclear localization signal** *ONCOGENE*
Liang, S. H., Clarke, M. F.

- 1999; 18 (12): 2163-2166
- **Role of p53 in the regulation of irradiation-induced apoptosis in neuroblastoma cells** *MOLECULAR GENETICS AND METABOLISM*
Jasty, R., Lu, J. Y., Irwin, T., Suchard, S., Clarke, M. F., Castle, V. P.
1998; 65 (2): 155-164
 - **Cooperation of a single lysine mutation and a C-terminal domain in the cytoplasmic sequestration of the p53 protein** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Liang, S. H., Hong, D., Clarke, M. F.
1998; 273 (31): 19817-19821
 - **A method of limited replication for the efficient in vivo delivery of adenovirus to cancer cells** *HUMAN GENE THERAPY*
Han, J. S., Qian, D. L., Wicha, M. S., Clarke, M. F.
1998; 9 (8): 1209-1216
 - **Targeting cancer cell death with a bcl-x(s) adenovirus** *SPRINGER SEMINARS IN IMMUNOPATHOLOGY*
Han, J. S., Nunez, G., Wicha, M. S., Clarke, M. F.
1998; 19 (3): 279-288
 - **Prevention of fluorodeoxyuridine-induced cytotoxicity and DNA damage in HT29 colon carcinoma cells by conditional expression of wild-type p53 phenotype** *MOLECULAR PHARMACOLOGY*
Parsels, L. A., Zellars, R. C., Loney, T. L., Parsels, J. D., Clarke, M. F., MERCHANT, A. K., Lawrence, T. S., Maybaum, J.
1997; 52 (4): 600-605
 - **Bcl-x(s) enhances adenoviral vector-induced apoptosis in neuroblastoma cells** *CANCER RESEARCH*
Dole, M. G., Clarke, M. F., Holman, P., Benedict, M., Lu, J. Y., Jasty, R., EIPERS, P., Thompson, C. B., Rode, C., Bloch, C., Nunez, G., Castle, V. P.
1996; 56 (24): 5734-5740
 - **Strategy for identifying genes responsible for hemotopoietic stem cell homeostasis.**
Morrison, S., Park, I., Qian, D. L., Jerabek, L., Weissman, I., Clarke, M. F.
AMER SOC HEMATOLOGY.1996: 744-44
 - **Retroviral infection is limited by Brownian motion** *HUMAN GENE THERAPY*
CHUCK, A. S., Clarke, M. F., Palsson, B. O.
1996; 7 (13): 1527-1534
 - **bcl-x(s) gene therapy induces apoptosis of human mammary tumors in nude mice** *CANCER RESEARCH*
Ealovega, M. W., McGinnis, P. K., Sumantran, V. N., Clarke, M. F., Wicha, M. S.
1996; 56 (9): 1965-1969
 - **A RECOMBINANT BCL-X(S) ADENOVIRUS SELECTIVELY INDUCES APOPTOSIS IN CANCER-CELLS BUT NOT IN NORMAL BONE-MARROW CELLS** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Clarke, M. F., Apel, I. J., Benedict, M. A., Eipers, P. G., Sumantran, V., GONZALEZGARCIA, M., Doedens, M., Fukunaga, N., Davidson, B., Dick, J. E., Minn, A. J., Boise, L. H., Thompson, et al
1995; 92 (24): 11024-11028
 - **RETROVIRAL-MEDIATED GENE-TRANSFER IN HUMAN BONE-MARROW CELLS GROWN IN CONTINUOUS PERFUSION CULTURE VESSELS** *BLOOD*
Eipers, P. G., Krauss, J. C., Palsson, B. O., Emerson, S. G., Todd, R. F., Clarke, M. F.
1995; 86 (10): 3754-3762
 - **BCL-X(L) PROTECTS CANCER-CELLS FROM P53-MEDIATED APOPTOSIS** *ONCOGENE*
Schott, A. F., Apel, I. J., Nunez, G., Clarke, M. F.
1995; 11 (7): 1389-1394
 - **BCL-2 PROTECTS MURINE ERYTHROLEUKEMIA-CELLS FROM P53-DEPENDENT AND -INDEPENDENT RADIATION-INDUCED CELL-DEATH** *CARCINOGENESIS*
FUKUNAGAJOHNSON, N., Ryan, J. J., Wicha, M., Nunez, G., Clarke, M. F.
1995; 16 (8): 1761-1767
 - **OVEREXPRESSION OF BCL-X(S), SENSITIZES MCF-7 CELLS TO CHEMOTHERAPY-INDUCED APOPTOSIS** *CANCER RESEARCH*

- Sumantran, V. N., Ealovega, M. W., Nunez, G., Clarke, M. F., Wicha, M. S.
1995; 55 (12): 2507-2510
- **In vitro expansion of hematopoietic cells for clinical application.** *Cancer treatment and research*
Emerson, S. G., Palsson, B. O., Clarke, M. F., Silver, S. M., Adams, P. T., Koller, M. R., Van Zant, G., Rummel, S., Armstrong, R. D., MALUTA, J.
1995; 76: 215-223
 - **The Bcl-2 family of proteins: regulators of cell death and survival.** *Trends in cell biology*
Nuñez, G., Clarke, M. F.
1994; 4 (11): 399-403
 - **ALTERATION OF P53 CONFORMATION AND INDUCTION OF APOPTOSIS IN A MURINE ERYTHROLEUKEMIA CELL-LINE BY DIMETHYLSULFOXIDE** *LEUKEMIA RESEARCH*
Ryan, J. J., Clarke, M. F.
1994; 18 (8): 617-621
 - **C-MYC AND BCL-2 MODULATE P53 FUNCTION BY ALTERING P53 SUBCELLULAR TRAFFICKING DURING THE CELL-CYCLE** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Ryan, J. J., Prochownik, E., Gottlieb, C. A., Apel, I. J., Merino, R., Nunez, G., Clarke, M. F.
1994; 91 (13): 5878-5882
 - **CELL-CYCLE ANALYSIS OF P53-INDUCED CELL-DEATH IN MURINE ERYTHROLEUKEMIA-CELLS** *MOLECULAR AND CELLULAR BIOLOGY*
Ryan, J. J., Danish, R., Gottlieb, C. A., Clarke, M. F.
1993; 13 (1): 711-719
 - **C-MYB EFFECTS ON KINETIC EVENTS DURING MEL CELL-DIFFERENTIATION** *ONCOGENE*
Danish, R., ELAWAR, O., Weber, B. L., Langmore, J., Turka, L. A., Ryan, J. J., Clarke, M. F.
1992; 7 (5): 901-907
 - **CAN DEXTER CULTURES SUPPORT STEM-CELL PROLIFERATION** *EXPERIMENTAL HEMATOLOGY*
Varma, A., ELAWAR, F. Y., Palsson, B. O., Emerson, S. G., Clarke, M. F.
1992; 20 (1): 87-91
 - **MALIGNANT TRANSFORMATION OF NIH 3T3 FIBROBLASTS BY HUMAN C-SIS IS DEPENDENT UPON THE LEVEL OF ONCOGENE EXPRESSION** *MOLECULAR CARCINOGENESIS*
MACARTHUR, L. H., Clarke, M. F., Westin, E. H.
1992; 5 (4): 311-319
 - **THE INFLUENCE OF EXTRACELLULAR-MATRIX AND STROMA REMODELING ON THE PRODUCTIVITY OF LONG-TERM HUMAN BONE-MARROW CULTURES** *CYTOTECHNOLOGY*
Schwartz, R. M., Caldwell, J., Clarke, M. F., Emerson, S. G., Palsson, B. O.
1992; 10 (3): 217-224
 - **INVITRO MYELOPOIESIS STIMULATED BY RAPID MEDIUM EXCHANGE AND SUPPLEMENTATION WITH HEMATOPOIETIC GROWTH-FACTORS** *BLOOD*
Schwartz, R. M., Emerson, S. G., Clarke, M. F., Palsson, B. O.
1991; 78 (12): 3155-3161
 - **BIOTINYLATED GRANULOCYTE MACROPHAGE COLONY-STIMULATING FACTOR ANALOGS - EFFECT OF LINKAGE CHEMISTRY ON ACTIVITY AND BINDING** *BIOCONJUGATE CHEMISTRY*
ANGELOTTI, T. P., Clarke, M. F., Longino, M. A., Emerson, S. G.
1991; 2 (6): 466-474
 - **THE CONSTRUCTION OF HIGH-EFFICIENCY HUMAN BONE-MARROW TISSUE EXVIVO** *JOURNAL OF CELLULAR BIOCHEMISTRY*
Emerson, S. G., Palsson, B. O., Clarke, M. F.
1991; 45 (3): 268-272
 - **INFLUENCE OF MEDIUM EXCHANGE SCHEDULES ON METABOLIC, GROWTH, AND GM-CSF SECRETION RATES OF GENETICALLY ENGINEERED NIH-3T3 CELLS** *BIOTECHNOLOGY PROGRESS*
Caldwell, J., LOCEY, B., Clarke, M. F., Emerson, S. G., Palsson, B. O.
1991; 7 (1): 1-8

- **DIFFERENTIATION OF MOUSE ERYTHROLEUKEMIA-CELLS ENHANCED BY ALTERNATIVELY SPLICED C-MYB MESSENGER-RNA** *SCIENCE*
Weber, B. L., Westin, E. H., Clarke, M. F.
1990; 249 (4974): 1291-1293
- **ALTERNATIVE SPLICING OF THE HUMAN C-MYB GENE** *ONCOGENE*
Westin, E. H., Gorse, K. M., Clarke, M. F.
1990; 5 (8): 1117-1124
- **THE PROLIFERATION OF AML-193 IS REGULATED BY MULTIPLE HEMATOPOIETIC GROWTH-FACTORS AND CYTOKINES** *LEUKEMIA*
Adams, S., Upadhyaya, G., Clarke, M. F., Emerson, S. G.
1989; 3 (4): 314-315
- **CONSTITUTIVE EXPRESSION OF A C-MYB CDNA BLOCKS FRIEND MURINE ERYTHROLEUKEMIA CELL-DIFFERENTIATION** *MOLECULAR AND CELLULAR BIOLOGY*
Clarke, M. F., KukowskaLatalo, J. F., Westin, E., Smith, M., Prochownik, E. V.
1988; 8 (2): 884-892
- **ACTIVATION OF A NOVEL KPNI TRANSCRIPT BY DOWNSTREAM INTEGRATION OF A HUMAN T-LYMPHOTROPIC VIRUS TYPE-I PROVIRUS** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Okamoto, T., Reitz, M. S., Clarke, M. F., JAGODZINSKI, L. J., WONGSTAAL, F.
1986; 261 (10): 4615-4619
- **Sequence-specific interaction of histones with the simian virus 40 enhancer region in vitro.** *journal of biological chemistry*
Clarke, M. F., Fitzgerald, P. C., Brubaker, J. M., Simpson, R. T.
1985; 260 (23): 12394-12397
- **DNA METHYLATION AND EXPRESSION OF HLA-DR-ALPHA** *MOLECULAR AND CELLULAR BIOLOGY*
Reitz, M. S., Mann, D. L., Eiden, M., Trainor, C. D., Clarke, M. F.
1984; 4 (5): 890-897
- **METHYLATION OF HUMAN T-CELL LEUKEMIA-VIRUS PROVIRAL DNA AND VIRAL-RNA EXPRESSION IN SHORT-TERM AND LONG-TERM CULTURES OF INFECTED-CELLS** *VIROLOGY*
Clarke, M. F., Trainor, C. D., Mann, D. L., Gallo, R. C., Reitz, M. S.
1984; 135 (1): 97-104
- **TRANSFORMING POTENTIAL OF HUMAN C-SIS NUCLEOTIDE-SEQUENCES ENCODING PLATELET-DERIVED GROWTH-FACTOR** *SCIENCE*
Josephs, S. F., Ratner, L., Clarke, M. F., Westin, E. H., Reitz, M. S., WONGSTAAL, F.
1984; 225 (4662): 636-639
- **DIFFERENTIAL METHYLATION OF CLASS-I HISTOCOMPATIBILITY ANTIGEN GENES IN T-CELL LINES DERIVED FROM TWO DIFFERENT TYPES OF T-CELL MALIGNANCIES** *LEUKEMIA RESEARCH*
Clarke, M. F., Mann, D. L., Reitz, M. S.
1984; 8 (6): 965-?
- **TRANSFORMATION OF NIH 3T3-CELLS BY A HUMAN C-SIS CDNA CLONE** *NATURE*
Clarke, M. F., Westin, E., Schmidt, D., Josephs, S. F., Ratner, L., WONGSTAAL, F., Gallo, R. C., Reitz, M. S.
1984; 308 (5958): 464-467
- **IDENTIFICATION OF THE HUMAN T-CELL LYMPHOMA VIRUS IN B-CELL LINES ESTABLISHED FROM PATIENTS WITH ADULT T-CELL LEUKEMIA** *JOURNAL OF CLINICAL INVESTIGATION*
Mann, D. L., Clark, J., Clarke, M., Reitz, M., Popovic, M., Franchini, G., Trainor, C. D., STRONG, D. M., Blattner, W. A., Gallo, R. C.
1984; 74 (1): 56-62
- **Presence of HTLV in a subset of T cells from an infected patient: some immunochemical properties of the infected cells.** *Haematology and blood transfusion*
Reitz, M. S., Mann, D., Clarke, M. F., Kalyanaraman, V. S., Robert-Guroff, M., Popovic, M., Gallo, R. C.
1983; 28: 459-461
- **HOMOLOGY OF HUMAN T-CELL LEUKEMIA-VIRUS ENVELOPE GENE WITH CLASS-I HLA-GENE** *NATURE*
Clarke, M. F., Gelmann, E. P., Reitz, M. S.

1983; 305 (5929): 60-62

- **RELATION OF RESPIRATORY BURST AND ARACHIDONATE METABOLISM DURING PHAGOCYTOSIS BY GUINEA-PIG ALVEOLAR MACROPHAGES** *JOURNAL OF LABORATORY AND CLINICAL MEDICINE*
INGRAHAM, L. M., Weening, R. S., Clarke, M. F., Boxer, L. A., Baehner, R. L.
1982; 99 (6): 908-916