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EDUCATION

2001-2006 Post-doc, National Institutes of Health, Bethesda, MD.
2000 Ph.D., University of Cape Town, South Africa.
1991 BSc(MED)(HONS), University of Cape Town, South Africa.
1990 BSc., University of Cape Town, South Africa.

ACADEMIC APPOINTMENTS

2013-Present: Assistant Professor
Department of Medicine
University of Louisville
Louisville, KY

2007-2013: Instructor
Department of Medicine
University of Louisville
Louisville, KY

February 2007-August 2007: Research Associate
University of Cape Town
Cape Town, South Africa

September 2001-September 2006: Post-doctoral fellow
National Cancer Institute
National Institutes of Health
Bethesda, MD.

August 1999-August 2001: Post-doctoral fellow
Department of Medicine
University of Stellenbosch
Tygerberg, South Africa.

OTHER POSITIONS AND EMPLOYMENT

CERTIFICATION AND LICENSURE

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

- 2002-2008:** Member of the American Association for Cancer Research.
- 2000-2001:** Member of the South African Pulmonology Society.
- 1992-2000:** Member of the Experimental Biology Group, South Africa.
- 1992-2000:** Member of the South African Society of Biochemistry & Molecular Biology

HONORS AND AWARDS

- 2013:** Roger Herzig Jr. Faculty Research Prize, 1st place, James Graham Brown Cancer Center, 12th Annual Retreat, Louisville, Kentucky, USA.
- 2011:** Roger Herzig Jr. Faculty Research Prize, 3rd place, James Graham Brown Cancer Center, 10th Annual Retreat, Louisville, Kentucky, USA.
- 2009:** Chair, Session III, Animal Models of RASSF1A. **Clinical and Biological Implications for the Role of the RASSF Family of Tumor Suppressor Proteins. First International Symposium**, Banff, Alberta, Canada
- 2005:** Fellows Award for Research Excellence (FARE), National Cancer Institute
- 2001:** Medical Research Council (MRC) Postdoctoral Scholarship, University of Stellenbosch, South Africa.
- 2000:** Best clinical paper at the 3rd Annual AstraZeneca Medical Research Day, University of Stellenbosch, South Africa.
- 1997:** International Union of Biochemistry and Molecular Biology (IUBMB) Travel Fellowship.
- 1991-1996:** Marion Beatrice Waddell Award, University of Cape Town, South Africa.
- 1991-1995:** South African Foundation for Research Development (FRD) bursary, University of Cape Town, South Africa.
- 1991:** Honours degree obtained with distinction, University of Cape Town, South Africa.
- 1990:** Dean's Merit List, University of Cape Town, South Africa.

COMMITTEE ASSIGNMENTS AND ADMINISTRATIVE SERVICES**Advisory Councils:**

- 2019:** Doctoral thesis examiner for the University of Cape Town, South Africa
- 2018:** Reviewer for the Monitoring and Evaluation Unit of the National Research Foundation of South Africa.
- 2016:** External referee, Health Sciences Faculty Promotions and Remuneration Committee, University of Cape Town, South Africa
- 2014:** Master's thesis examiner for the University of Cape Town, South Africa
- 2010-2012:** Reviewer for the Monitoring and Evaluation Unit of the National Research Foundation of South Africa.
- 2008:** Doctoral thesis examiner for the University of Cape Town, South Africa.

EDUCATIONAL ACTIVITIES**Thesis Committees:**

- 2022-present** Raphael Jigo, Ph.D candidate
- 2021-present** Omar Sadi Sakar, Ph.D candidate
- 2020-present** Austin Michael Krueger, Ph.D candidate
- 2018-2019** Douglas Saforo, Ph.D candidate

2017-2020 Desmond Stewart, Ph.D candidate
2011-2015 Thibaut Barnoud, Ph.D candidate

Students:

2022: Mentor, Oliver Li, high school student (BCC Summer Internship Program – 3rd place at Research! Louisville)
2016: Mentor, Mary Grace Stachnik, high school student (BCC Summer Internship Program – 3rd place at Research! Louisville)
2015: Mentor, Veeresh Rai, high school student (BCC Summer Internship Program).
2014: Mentor, Spencer Henderson, high school student (BCC Summer Internship Program).
2011: Mentor, Jessica Freeman, (DIR, Summer Research Scholar Program, Dept. Medicine).
 Mentor, Audra Isaac, (Summer Research Scholar Program, Dept. of Medicine).
2010: Mentor, Meghan Monaghan, Summer Student.

Teaching:

2007: Course developer and lecturer, Advanced Molecular Biology Training Course, University of Cape Town, South Africa.
1998: Lecturer, BSc Honours course in Medical Biochemistry, University of Cape Town, South Africa.
1992-1994: Practical Demonstrator for undergraduate medical students, University of Cape Town, South Africa.

CLINICAL ACTIVITIES**GRANTS AND CONTRACTS** (Number each grant)**Pending:**

- Agency: American Lung Association
 Title: A novel IL-6 small molecule inhibitor as a new therapeutic for lung cancer
 Role: PI

Current:

- Agency: Kentucky State Pediatric Cancer Research Trust Fund (KPCTRF)
 Title: Targeting CCL2 as a Therapeutic Strategy for Pediatric Brain Cancer
 Funding Period: 07/01/2023 – 06/30/2025
 Role: Co-PI (Huang, PI; Yaddanapudi, Co-PI)
 Percent Effort: 15%
 Funding amount: \$500,000 – direct costs
- Agency: NIH/NCI
 Title: Identifying and targeting a novel mechanism of chemotherapy-induced immunotherapeutic resistance in non-small cell lung cancer
 Funding Period: 04/01/2023 – 03/31/2028
 Role: Co-I (Yaddanapudi, PI)
 Percent Effort: 8%
 Funding Amount: \$1,250,000 – direct costs

3. Agency: CDMRP/DoD
Title: RAS Inhibitors for NF1-Deficient HGSOC
Funding Period: 04/01/2023 – 03/31/2025
Role: Co-I (Clark, PI)
Percent Effort: 25%
Funding Amount: \$250,000 – direct costs
4. Agency: Kentucky Pediatric Cancer Research Trust Fund Grant Program
Title: Role of the immunosuppressive tumor microenvironment in therapeutic resistance in pediatric CNS cancers
Funding Period: 07/01/2020 – 06/30/2022 (1 year NCE)
Role: Co-PI (Huang, PI; Yaddanapudi Co-PI)
Percent Effort: 20%
Funding amount: \$300,000 – direct costs

Past:

1. Agency: Kentucky Lung Cancer Research Program (KLCRP)
Title: Overcoming lung cancer MDSC-mediated immune suppression by targeting IL-6 signaling.
Funding Period: 07/01/2018 – 06/30/2020
Role: Principal Investigator
Percent Effort: 10%
Funding amount: \$136,364 – direct costs
\$13,636 – indirect costs
2. Agency: Kentucky Biomedical Research Infrastructure Network (KBRIN)
Title: Single Cell Sequencing of Ocular Immune Cells in a Model of Uveitis Pre-and Post-Anti-IL-6 Treatment Uveitis
Funding Period: 05/01/2020 – 04/30/2021
Role: Principal Investigator
3. Agency: Kentucky Economic Development Cabinet (KYNETIC)
Title: A novel anti-IL-6 inhibitor as a new immunotherapeutic for uveitis
Funding Period: 07/01/2020 – 06/30/2021
Role: Principal Investigator (Yaddanapuddi and Hao Co-PI's)
Percent Effort: 5%
Funding amount: \$75,000 – direct costs
4. Agency: Kentucky Biomedical Research Infrastructure Network (KBRIN)
Title: Transcriptome profiling of cancer-associated fibroblasts using RNA-seq
Funding Period: 05/01/2019 – 04/30/2020
Role: Principle Investigator
5. Agency: NIH Reach (ExCITE) U01HL127518 Pilot Project
Title: Novel small molecule inhibitors of IL-6
Funding Period: 08/01/2019 – 11/30/2019
Role: Principal Investigator
Percent Effort: 2%

6. Agency: Jewish Heritage Fund for Excellence Research Enhancement Grant
 Title: Overcoming melanoma MDSC suppressive function by targeting IL-6
 Funding Period: 12/1/2016 – 11/31/2017
 Role: Principal Investigator
 Percent Effort: 5%
 Funding Amount: \$50,000 – direct costs

7. Kentucky Lung Cancer Research Program (KLCRP)
 Title: Small molecule inhibitors of pro-inflammatory cytokines as novel therapeutics for Ras-mediated lung cancer.
 Funding Period: 02/01/2013-01/31/2015 (12 month no cost extension until 01/31/2016)
 Role: Principal Investigator
 Percent Effort: 5%
 Funding amount: \$136,364 – direct costs
 \$13,636 – indirect costs

8. Kentucky Lung Cancer Research Program (KLCRP)
 Title: “The role of the novel Ras effector, RASSF2, in Ras mediated lung cancer”
 Funding Period: 02/01/2010 – 01/31/2012
 Role: Principal Investigator
 Percent Effort: 5%
 Funding amount: \$68,182 – direct costs
 \$6,818 – indirect costs

PATENTS

Research Disclosures

- 2020:** Development of novel small molecule inhibitors of interleukin 6 (IL 6) as new immunotherapeutics
2019: Novel small molecule inhibitors of interleukin-6 (IL-6) as new immunotherapeutics
2017: Novel Small molecule inhibitors of IL-6

Provisional Patents

- 2021:** 63/111,350. Development of novel small molecule inhibitors of interleukin-6 (IL-6) as new immunotherapeutics.

EDITORIAL WORK

Editorial Boards

- 2018 - present:** Cells, Reviewer Board
2015 - present: Frontiers in Genetics and Oncology

Ad Hoc Reviewer

- 2022:** Cancers
2021: Cancers, Biomolecules, Life Sciences

2020: Molecules, Frontiers in Oncology, PLoS One, American Journal of Pathology, Cancers
2019: Experimental Cell Research, Frontiers in Genetics, American Journal of Pathology, Journal of Clinical Medicine, Frontiers in Oncology, IUBMB Life, PLoS One, Life Sciences, Cancers
2018: Frontiers in Pharmacology, Frontiers in Immunology, Briefings in Bioinformatics, International Journal of Molecular Sciences, Cells, Biological Chemistry
2017: Frontiers in Genetics, Frontiers in Immunology, Frontiers in Pharmacology
2016: Briefings in Bioinformatics, Biochemistry and Cell Biology, Frontiers in Genetics
2015: Briefings in Bioinformatics, Frontiers in Genetics, Clinical and Experimental Metastasis
2014: Nucleic Acids Research
2013: Nucleic Acids Research
2012: Nucleic Acids Research
2010: Molecular Cancer
2009: Leukemia Research
2005: International Journal of Cancer

Grant reviewer

2015: National Research Foundation (NRF), South Africa
2014: National Research Foundation (NRF), South Africa
2013: National Research Foundation (NRF), South Africa

Study Sections

2020: DoD CDMRP BCRP Cell Biology
2019: DoD CDMRP BCRP Molecular Biology and Genetics
2016: DoD CDMRP PRCRP Melanoma and Other Skin Cancers (Horizon Award)

ABSTRACTS AND PRESENTATIONS

a. Oral Presentations: National/International Meetings

1. A conserved motif within the RASSF family functions in microtubule association and dimerization. **Third International RASSF Symposium – Satellite Symposium to the meeting on The Hippo Tumor Suppressor Network: From Organ Size Control to Stem Cells and Cancer**, Monterey, California, USA, 2013. *
2. RASSF1A can Regulate the Hippo Pathway in an MST Independent Manner. **Second International RASSF Symposium**, Queens College, Oxford, United Kingdom, 2011.
3. RASSF1A Requires Salvador to Modulate the HIPPO Pathway. **The Second Workshop on the HIPPO Tumor Suppressor Pathway**, Ariccia (Rome), Italy, 2010.
4. The Ras Effector RASSF2 Suppresses Prostate Cancer via PAR-4. **Clinical and Biological Implications for the Role of the RASSF Family of Tumor Suppressor Proteins. First International Symposium**, Banff, Alberta, Canada, 2009. *
5. Characterisation of Unique p53 Mutations in South African Breast Cancer Patients. **IUBMB and ASBMB Young Scientists' Symposium**, Monterey, California, USA, 1997.

* Invited talk.

b. Oral Presentations: Local/Regional Meetings

1. Multiple applications of a novel IL-6 small molecule inhibitor. **NCCI Translational Research Meeting**, University of Louisville, Louisville, Kentucky, February 2023
2. Small molecules as a novel approach to inhibit IL-6 signaling. **James Graham Brown Cancer Center Colloquia on Cancer Biology and Therapeutics**, University of Louisville, Louisville, Kentucky, March 2019
3. IL-6 as a therapeutic target: more than meets the eye. **James Graham Brown Cancer Center Colloquia on Cancer Biology and Therapeutics**, University of Louisville, Louisville, Kentucky, July 2017.
4. Inhibiting IL-6 signaling as a novel cancer therapeutic approach: two sides to the story. **James Graham Brown Cancer Center Colloquia on Cancer Biology and Therapeutics**, University of Louisville, Louisville, Kentucky, November 2015.
5. Inhibiting IL-6 signaling with small molecules- A novel cancer therapeutic approach? **James Graham Brown Cancer Center Colloquia on Cancer Biology and Therapeutics**, University of Louisville, Louisville, Kentucky, August 2014.
6. Regulation of DNA Repair: A Novel Function for the Ras Effector RASSF1A. **Molecular Targets Seminar series, University of Louisville**, Louisville, Kentucky, December 2013.
7. RASSF2: The Missing (Ras) Link. **Molecular Targets Seminar series, University of Louisville**, Louisville, Kentucky, February 2012.
8. RASSF1A gets HIPPOcritical. **Molecular Targets Seminar series, University of Louisville**, Louisville, Kentucky, January 2011.
9. The Ras Effector RASSF2 Suppresses Prostate Cancer via PAR-4. **Molecular Targets Seminar series, University of Louisville**, Louisville, Kentucky, June 2009.

c. Poster Presentations: National/International Meetings

1. Yaddanapudi, Y., Chen, N., Shao, S., Burlison, J., Miriyala, N., DeLeeuw, L.W., Trent, J.O., Clark, G.J., and **Donninger, H.** Development of a Small Molecule Inhibitor of IL-6 as a Novel Therapeutic. **Keystone Symposia; Modern Phenotypic Drug Discovery: From Chemical Biology to Therapeutics**, Denver, Colorado, USA, 2022.
2. Clark, G.J., Schmidt, M.L., Trent, J.O., Burlison, J. and **Donninger, H.** Inhibition of Ras-driven tumorigenesis by blocking IL-6 signaling. **The second RAS Initiative Symposium**, Frederick Maryland, USA, 2017.
3. **Donninger, H.**, and Clark G.J. RASSF1A links Ras to protein acetylation via SIRT1. **Post-Translational Regulation of Cell Signaling**, Salk Institute, La Jolla, California, USA, 2016.
4. **Donninger, H.**, and Clark, G.J. RASSF1A links Ras to protein acetylation via SIRT1. **RAS Initiative Symposium**, Frederick, Maryland, USA, 2015.

5. Barnoud, T., **Donninger, H.**, and Clark, G.J. NORE1A links Ras to Rb-mediated Senescence. **RAS Initiative Symposium**, Frederick, Maryland, USA, 2015.
6. Holderness, N., **Donninger, H.**, Birrer, M., and Leaner, V. p21-activated kinase 3 (PAK3) is a cJun regulated gene that associates with AP-1 induced oncogenesis. **36th FEBS Congress, Biochemistry for Tomorrow's Medicine**, Torino, Italy, 2011. FEBS Journal, 278 (Special Issue, Supplement 1): 217, 2011.
7. Mok, S., Birrer, M., **Donninger, H.**, Hao, K., Ozbun, L., Samini, G., Vathepadiekal, V., Berkowitz, R., Bonome, T., and Wong, K. A gene signature predictive for outcome in advanced ovarian cancer identifies a novel survival factor: Microfibril-associated glycoprotein 2. **41st Annual Meeting of the Society of Gynecologic Oncologists**, San Francisco, California, USA, 2010. Gynecologic Oncology, 116:(3, Supplement 1): 164, 2010.
8. Johnson, M., **Donninger, H.**, Birrer, M., Berkowitz, R. and Mok, S. Identification of EVI1 amplification in ovarian cancer by oligonucleotide array comparative genomic hybridization. **American Association for Cancer Research 98th Annual Meeting**, Los Angeles, California, USA, 2007.
9. Wu, K., Liu, M., Li, A., **Donninger, H.**, Birrer, M., Cvekl, A. and Pestell, R.G. The cell fate determination factor DACH1 inhibits c-Jun induced contact-independent growth. **American Association for Cancer Research 97th Annual Meeting**, Washington D.C., USA, 2006.
10. **Donninger, H.**, Leaner, V.D., Chick, J.F.B. and Birrer, M.J. PAK3 is a cJun transcriptional target gene involved in cJun-induced anchorage-independent growth of Rat1a cells. **American Association for Cancer Research 97th Annual Meeting**, Washington D.C., USA, 2006.
11. **Donninger, H.**, Leaner, V.D. and Birrer, M.J. Transcriptional and biologic activities of N-terminal cJun deletion mutants. **Beatson International Cancer Conference**, Glasgow, Scotland, 2005.
12. Bonome, T., Park, D.C., Hao, K., **Donninger, H.**, Radonovich, M., Brady, J., Barrett, J.C., Wong, W.H., Welch, W.R., Mok, S.C., and Birrer, M.J. Identification of a gene signature that can predict long-term survival in patients with high-grade late stage serous ovarian cancer. **American Society of Clinical Oncology (ASCO) 41st Annual Meeting**, Orlando, FL, USA, 2005. J. Clin.Oncol. 23 (16, Supplement S): 462S, 2005.
13. **Donninger, H.**, Bonome, T., Li, J., Park, D., Radonovich, M., Pise-Masison, C., Brady, J., Barrett, J.C., Mok, S.C. and Birrer, M.J. Expression profiling of microdissected papillary serous ovarian epithelial cancers identifies genes describing the unique phenotypes of borderline and malignant tumors. **American Society of Clinical Oncology (ASCO) 41st Annual Meeting**, Orlando, FL, USA, 2005. J. Clin.Oncol. 23 (16, Supplement S): 462S, 2005.
14. Xu, L., **Donninger, H.** and Birrer, M.J. Creation of a c-Jun/AP-1 ChIP library. **American Association for Cancer Research 96th Annual Meeting**, Anaheim, CA, USA, 2005.
15. Park, D-C., Hao, K., Bonome, T., **Donninger, H.**, Brady, J., Radonovich, M., Barrett, C., Koon, C.E., Wong, W.H., Lee, J-Y., Welch, W.R., Berkowitz, R.S., Mok, S.C. and Birrer, M.J. Identification of a gene signature that can predict survival in patients with high-grade late stage serous ovarian cancer. **American Association for Cancer Research 96th Annual Meeting**, Anaheim, CA, USA, 2005.
16. Leaner, V.D., **Donninger, H.**, Ellis, C.A., Clark, G.J. and Birrer, M.J. c-Jun regulates the expression of RasGRF1 with concomitant activation of ras mediated signaling pathways. **American Association for Cancer Research 94th Annual Meeting**, Washington D.C., USA, 2003.

17. Hommura, F., Katabami, M., Leaner, V.D., **Donninger, H.**, Resar, L.M.S., Reeves, R. and Birrer, M.J. HMGA1 is a cJun responsive gene and is necessary for cJun induced anchorage-independent growth. **American Association for Cancer Research 94th Annual Meeting**, Washington D.C., USA, 2003.
18. **Donninger, H.**, Leaner, V.D. and Birrer, M.J. Mutational Comparison of the cJun and JunB DNA binding domains and correlation to biologic effect. **American Association for Cancer Research 94th Annual Meeting**, Washington D.C., USA, 2003.
19. **Donninger, H.**, Glashoff, R., Syce, J., Janse van Rensburg, E. and Bardin, PG. The Effect of Cytokine Stimulation on Chemokine Production by Bronchial Epithelial Cells. **Combined Congress Critical Care Society of Southern Africa & South African Pulmonology Society**, Durban, South Africa, 2000.
20. Glashoff, R., **Donninger, H.**, Syce, J., Janse van Rensburg, E. and Bardin, PG. Rhinovirus Infection of Bronchial Epithelial Cells: Effect on ICAM-1 Expression and Chemokine Production. **Combined Congress Critical Care Society of Southern Africa & South African Pulmonology Society**, Durban, South Africa, 2000.
21. **Donninger, H.** and Parker, M.I. Characterisation of Unique p53 Mutations in South African Breast Cancer Patients. **17th International Congress of Biochemistry and Molecular Biology in Conjunction with the Annual Meeting of the ASBMB**, San Francisco, California, 1997. *FASEB Journal*, 11 (Supplement S): A1252, 1997.
22. **Donninger, H.** and Parker, M.I. Analysis of p53 Mutations in Breast Cancer. **CANCER '97. Recent Advances in the Molecular and Cellular Aspects of Cancer. Second National Conference**, Langebaan, South Africa, 1997.
23. **Donninger, H.** and Parker, M.I. Analysis of p53 Mutations in Breast Cancer. **American Association for Cancer Research meeting on Cancer Susceptibility Genes and Molecular Carcinogenesis**, Keystone, Colorado, USA, 1996.
24. **Donninger, H.** and Parker, M.I. Analysis of p53 Mutations in Breast Cancer. **The First UK-RSA Symposium on "Cell Growth Control"**, Cape Town, South Africa, 1996.
25. Parker, M.I., Fenhalls, G. and **Donninger, H.** Gene Mutations in Breast and Colon Cancer. **Second Pan-African Environmental Mutagen Society Conference**, Cape Town, South Africa, 1996.
26. **Donninger, H.** and Parker, M.I. Analysis of p53 Mutations in Breast Cancer. **Second Pan-African Environmental Mutagen Society Conference**, Cape Town, South Africa, 1996.
27. **Donninger, H.** and Parker, M.I. Identification of Differentially Expressed Genes. **Thirteenth South African Biochemical Society Congress**, Bloemfontein, South Africa, 1995.
28. **Donninger, H.** and Parker, M.I. Analysis of p53 Mutations in Breast Cancer. **Twelfth South African Biochemical Society Congress**, Stellenbosch, South Africa, 1994.

d. Poster Presentations: Local/Regional Meetings

1. Li, O., Burlison, J., Trent, J.O., Clark, G.J. and **Donninger, H.** Identification of Improved Small Molecule Inhibitors of IL-6. Oliver. **Research! Louisville**, University of Louisville, Louisville, Kentucky, USA, 2022.
2. Henderson, S., Barnoud, T., Trent, J.O., Clark, G.J. and **Donninger, H.** Novel small molecule inhibitors of IL-6 block the transformed phenotype. **James Graham Brown Cancer Center, 14th Annual Retreat**, Louisville, Kentucky, USA, 2014.

3. Barnoud, T., **Donninger, H.** and Clark, G.J. Ras regulates Rb-mediated senescence via NORE1A. **James Graham Brown Cancer Center, 14th Annual Retreat**, Louisville, Kentucky, USA, 2014.
4. Al Rayyan, N., Richie, J.L., Faughn, J., Lamont, G., **Donninger, H.**, Eaton, J. and Yaddanapudi, K. Galectin-1 as a novel target for melanoma. **James Graham Brown Cancer Center, 14th Annual Retreat**, Louisville, Kentucky, USA, 2014.
5. **Donninger, H.**, Rinaldo, F., Vos, M.D. and Clark, G.J. RASSF1A controls XPA-mediated DNA repair by modulating SIRT1 activity. **James Graham Brown Cancer Center, 12th Annual Retreat**, Louisville, Kentucky, USA, 2013.
6. Barnoud, T., **Donninger, H.** and Clark, G.J. NORE1A is a Ras senescence node. **James Graham Brown Cancer Center, 12th Annual Retreat**, Louisville, Kentucky, USA, 2013.
7. Schmidt, M.L., **Donninger, H.** And Clark, G.J. The novel interaction of NORE1A and β -TrCP connects Ras to the Wnt pathway. **James Graham Brown Cancer Center, 12th Annual Retreat**, Louisville, Kentucky, USA, 2013.
8. Hobbing, K.R., **Donninger, H.** and Clark, G.J. Loss of RASSF1A enhances K-Ras induced lung cancer. **James Graham Brown Cancer Center, 12th Annual Retreat**, Louisville, Kentucky, USA, 2013.
9. Dilk, A., Faughn, J., **Donninger, H.** and Yaddanapudi, K. Galectin-1 as a potential therapeutic target for lung cancer. **James Graham Brown Cancer Center, 12th Annual Retreat**, Louisville, Kentucky, USA, 2013.
10. **Donninger, H.**, Clark, J., Trent, J.O. and Clark, G.J. Small molecule inhibitors of IL-6 as novel cancer therapeutics. **James Graham Brown Cancer Center, 11th Annual Retreat**, Louisville, Kentucky, USA, 2012.
11. **Donninger, H.**, Clark, J., Barnoud, T., Schmidt, L., Gordon, L. and Clark, G.J. Nore1A regulates p53 activity through HIPK2. **James Graham Brown Cancer Center, 11th Annual Retreat**, Louisville, Kentucky, USA, 2012.
12. Barnoud, T., **Donninger, H.**, Clark, J., Gordon, L. and Clark, G.J. Analysis of a novel interaction between the tumor suppressor RASSF1A and ACF7. **James Graham Brown Cancer Center, 11th Annual Retreat**, Louisville, Kentucky, USA, 2012.
13. **Donninger, H.**, Nelson, N., Barnoud, T., Pogue, J., Kassler, S., Cummins, T.C., Powell, D., and Clark, G.J. Functional characterization of the RASSF1A A133S tumor-associated SNP. **James Graham Brown Cancer Center, 10th Annual Retreat**, Louisville, Kentucky, USA, 2011.
14. Pogue, J., Freeman, J.L., Clark, G.J. and **Donninger, H.** Loss of RASSF2 expression enhances the transformed phenotype of lung cancer cells. **James Graham Brown Cancer Center, 10th Annual Retreat**, Louisville, Kentucky, USA, 2011.
15. **Donninger, H.**, Williams, A., Henson, A., Gordon, L., Pogue, J., Dunwell, T., Latif, F. and Clark, G.J. RASSF1A Requires Salvador to Modulate the HIPPO Tumor Suppressor Pathway by a Novel MST Independent Mechanism. **James Graham Brown Cancer Center, 9th Annual Retreat**, Louisville, Kentucky, USA, 2010.
16. **Donninger, H.**, Hesson, L., Vos, M., Eckfeld, K., Gordon, L., Sidransky, M., Liu, L., Payne, S., Latif, F., and Clark, G.J. The Ras Effector RASSF2 Suppresses Prostate cancer via PAR-4. **James Graham Brown Cancer Center, 7th Annual Retreat**, Louisville, Kentucky, USA, 2008.

PUBLICATIONS**PEER-REVIEWED**

1. **Donninger H**, Li C, Eaton JW, Yaddanapudi K. Cancer Vaccines: Promising Therapeutics or an Unattainable Dream. *Vaccines (Basel)*. Jun 18;9(6):668, 2021. PMID 34207062.
2. **Donninger, H.**, Harrell-Stewart, D., and Clark, G.J. Detection of endogenous RASSF1A Interacting Proteins. *Methods Mol Biol*, 2262:303-310, 2021. PMID 33977485.
3. Harrell-Stewart, D.R., Schmidt, M.L., **Donninger, H.**, and Clark, G.J. The RASSF1A Tumor Suppressor Binds the RasGAP DAB2IP and Modulates RAS Activation in Lung Cancer. *Cancers (Basel)*. Dec 17;12(12):3807, 2020. PMID 33348649.
4. Li, C.*, **Donninger, H.***, Eaton, J., and Yaddanapudi, K. Regulatory Role of Immune Cell-Derived Extracellular Vesicles in Cancer: The Message Is in the Envelope. *Front Immunol*. Jul 16;11:1525, 2020. PMID 32765528 (* Contributed equally)
5. Harrell-Stewart, D., Hobbing, K., Schmidt, M.L., **Donninger, H.**, and Clark, G.J. The role of RASSF proteins in modulating RAS driven lung tumors *in vivo*. *J Thorac Dis*. 11(Suppl 9):S1436-S1437, 2019. PMID 31245154.
6. He, L., Wei, X., Ma, X., Yin, X., Song, M., **Donninger, H.**, Yaddanapudi, K., McClain, C.J., and Zhang X. Simultaneous Quantification of Nucleosides and Nucleotides from Biological Samples. *J Am Soc Mass Spectrom*. 30(6):987-1000, 2019. PMID 30847833.
7. Schmidt, M.L., Hobbing, K.R., **Donninger, H.**, and Clark, G.J. RASSF1A deficiency enhances RAS-driven lung tumorigenesis. *Cancer Res*. 78(10):2614-2623, 2018. PMID 29735543.
8. Barnoud, T., Schmidt, M.L., **Donninger, H.**, and Clark, G.J. The role of the NORE1A tumor suppressor in Oncogene-Induced Senescence. *Cancer Lett*. 400:30-36, 2017. PMID 28455242.
9. Arora, P., Basu, A., Schmidt, M.L., Clark, G.J., **Donninger, H.**, Nichols, D.B., Calvisi, D.F., and Kaushik-Basu, N. Nonstructural protein 5B promotes degradation of the NORE1A tumor suppressor to facilitate hepatitis C virus replication. *Hepatology*. 65(5):1462-1477, 2017. PMID 28090674.
10. **Donninger, H.**, Schmidt, M.L., Mezzanotte, J., Barnoud, T., and Clark, G.J. Ras signaling through RASSF proteins. *Semin Cell Dev Biol*. 58:86-95, 2016. PMID 27288568.
11. Barnoud, T., Wilkey, D.W., Merchant, M.L., Clark, J.A. and **Donninger, H.** Proteomics Analysis Reveals Novel RASSF2 Interaction Partners. *Cancers (Basel)*. 8(3). pii: E37, 2016. PMID 26999212.
12. **Donninger, H.**, Barnoud, T., and Clark, G.J. NORE1A is a double barreled Ras senescence effector that activates p53 and Rb. *Cell Cycle*. 15(17) 2263-2264, 2016. PMID 26919075.
13. Barnoud, T., **Donninger, H.**, and Clark, G.J. Ras regulates Rb via NORE1A. *J. Biol. Chem*. 291: 3114-3123, 2016. PMID 26677227.
14. Scherzer, M.T., Waigel, S., **Donninger, H.**, Arumugam, V., Zacharias, W., Clark, G., Siskind, L.J., Soucy, P., and Beverly, L. Fibroblast-derived Extracellular Matrices: An Alternative Cell Culture System That Increases Metastatic Cellular Properties. *Plos One*. 10(9):e0138065, 2015. PMID 26371754.

15. **Donninger, H.**, Hobbing, K., Schmidt, M.L., Walters, E., Rund, L., Schook, L., and Clark, G.J. A porcine model system of BRCA1 driven breast cancer. *Frontiers in Genetics*. 6: 269, 2015. PMID 26379698.
16. **Donninger, H.** and Clark, G.J. NORE1A drives RAS to flick the p53 senescent switch. *Molecular & Cellular Oncology*. Jun 10;3(3):e1055050, 2015. PMID 27314075.
17. **Donninger, H.**, Calvisi, D.F., Barnoud, T., Clark, J., Schmidt, M.L., Vos, M.D., and Clark, G.J. NORE1A is a Ras senescence effector that controls the apoptotic/senescent balance of p53 via HIPK2. *J. Cell. Biol.* 208: 777-789, 2015. PMID 25778922.
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Book Chapters

1. **Donninger, H.**, and Clark, G.J. (2022) RASSF2 and the PAR-4 Connection. In Rangnekar, V.M. (eds) *Tumor Suppressor Par-4*. Springer, Cham. https://doi.org/10.1007/978-3-030-73572-2_9