Note: For all of the following publications and presentations, investigators at more than one of the Partnership institutions participated in the work associated with their preparation. Thus, an asterisk (*) is not provided for each document.

Second funding period (9/1/11-8/31/16):

XII. Veena N. Rao (MSM)/Charles N. Landen, Jr. (UAB) - BRCA1 Deficiency and Epithelial Ovarian Cancers. (Funding period: 9/1/11-8/31/14)

Publications:


Contributions by Dr. Rao: Mentored postdoctoral fellows and research assistant who participated in this study. Accomplished data analysis and interpretation, manuscript writing and worked with Dr. Grizzle during various stages of manuscript submission and publication.

Contributions by Dr. Grizzle: Provided advice on immunostaining of triple negative breast cancer cells. Participated in discussions and gave critical review of the manuscript during the submission process.

Contributions by Dr. Landen: Had extensive discussions with Dr. Rao on using the appropriate ovarian cancer cell lines to be used for studying expression of BRCA1 and Ubc9. Worked with Dr. Rao during the preparation and publication of the manuscript.

Contributions by Dr. Cantor: Provided biostatistical support.


Contributions by Dr. Rao: Mentored postdoctoral fellows and research assistant who participated in this study. Helped them in data analysis/interpretation and manuscript writing. Worked with Drs. Landen and Grizzle during various stages of manuscript submission and publication.

Contributions by Dr. Grizzle: Provided advice on protocols for immunostaining of ovarian cancer cells and tissues. Participated in discussions and gave critical review of the manuscript during the submission process.

Contributions by Dr. Landen: Had extensive discussions with Dr. Rao on using the appropriate ovarian cancer cell lines to be used for studying expression of BRCA1 and Ubc9. Worked with Dr. Rao during the preparation and publication of the manuscript.

Contributions by Dr. Cantor: Provided biostatistical support.


Contributions by Dr. Rao: Led team in drafting and revising the manuscript.

Contributions by Dr. Singh: Evaluated statistical aspects of the review.

Contributions by Dr. Rao: Led team in drafting and revising the manuscript.

Presentations:
5. Xu, J.; Qin, Y.; Jingyao, X.; Aysola, K.; Ayre, K.; Cantor, A.; Grizzle, W.; Landen, C.; Partridge, E.; Matthews, R.; Oprea, G.; Reddy, E.S.P.; Rao, V.N. BRCA1 RING domain is required for nuclear import and growth suppression of TNBC. Presented at the first Annual MBI Research Symposium, held on March 22-23, 2012, MSM, Atlanta, GA.


17. Xu, J.; Qin, Y.; Aysola K.; Oprea G.; Reddy A.; Matthews R.; Okoli J.; Singh K.; Grizzle W.; Partridge E.; Reddy, E.S.P.; Landen, C.; Rao, V.N. BRCA1 isoforms sequester Ubc9 thus regulating the growth of ovarian cancers. Presented at the 2013 Student Research Day, February 12-13, 2013 at MSM, Atlanta GA.


20. Rao, V.N. BRCA1 deficiency and epithelial ovarian cancers. Presented at the MSM/TU/UAB CCC Summer Institute held on July 24, 2013, at Atlanta, GA.


26. Rao, V.N. BRCA1 deficiency and epithelial ovarian cancers. Presented at the meeting of the Program Steering Committee on March 26, 2014, in Birmingham, AL.

Grant proposals:

1. **Proposal # 1**: CEHD-MSM Faculty pilot study research award. Title: A pilot study to identify surrogate biomarkers for early detection of TNBC in AA women (PI: V.N. Rao) Total Project Period: 2013-2014. **Not funded**.

2. **Proposal # 2**: MSM G12 MBRC Pilot Project Collaborative Application. Title: Protein landscape to identify key players involved in chemoresistance of TNBC (PI: V.N. Rao, Co PI: M. Powell) Total Project Period: 2013-2014. **Not funded**.


10. **Proposal # 10**: GSK Discovery Fast Track application-Title: Novel BRCA1 Functional assay to develop targeted therapy for TNBC (Pl: V. N. Rao). **Not funded**.


12. **Proposal # 12**: UAB Breast SPORE pilot grant. Title: Novel BRCA1 functional assay to develop targeted therapy for TNBC (Pl: V. N. Rao). **Not funded**.


Patent application:


  **Career development**: In process
XIII. Kamel F. Khazal (TU)/Clinton Grubbs (UAB) - Chemopreventive and Therapeutic Activity of *Withania somnifera* and Its Mechanism of Action in Human Breast Cancer. (Funding period: 9/1/11-8/31/14)

Publications:

   **Contributions by Dr. Khazal:** Prepared extract, performed biochemical and histochemical analyses, drafted manuscript.

   **Contributions by Dr. Grubbs:** Supervised experiment with rats, edited manuscript.


   **Contributions by Dr. Khazal:** Prepared extract, performed biochemical and histochemical analyses, drafted manuscript.

   **Contributions by Dr. Grubbs:** Supervised experiment with mice, edited manuscript.


Presentations:


6. **Khazal, K.** Chemopreventive and therapeutic activity of *Withania somnifera* and its mechanism of action in human breast cancer. Presented at the MSM/TU/UAB CCC Summer Institute held on July 24, 2013, Atlanta, GA.


Proposals:

1. Khazal, K.F. (PI); Grubbs, C.J. Pilot application to the U54. Chemotherapeutic activity of *Withania somnifera* activity against xenografted stem cells (side population of MDA-MB-231 cells) and its preventive effect on spontaneous mammary tumors in mice. **Not funded.**

2. Khazal, K.F. (PI); Grubbs, C.J. Pre-Pilot application to the U54. Stinging nettle (*Urtica dioica*) extract for treatment of prostate cancer. **Not funded.**

Career development: I was awarded two grants through the U54 for a period of four years (2010-2014). During this period, I accomplished the following: (1) I have a well-established laboratory to conduct studies on the chemopreventive and chemotherapy of agents derived from medicinal plants such as *Withania somnifera*, and *Urtica dioica*. (2) Under the mentorship of Dr. Grubbs, I have been trained to conduct chemopreventive studies with murine models. (3) I published two manuscripts in a peer-reviewed journal. (4) I have prepared two grant proposals, an R15 and an SC2. (5) I have been appointed as an editorial board member for the Journal of Cancer Metastasis and Treatment. (Dr. Khazal died in July 2015.)

XIV. Temesgen Samuel (TU)/Clarence Clark (MSM)/Upender Manne (UAB) - Molecular Characterization of Aggressive Colon Cancers of African-American Patients. (Funding period: 9/1/11-8/31/14)

Publications:


**Contributions by Dr. Samuel:** Proposed the effort, initiated the study, performed the experiments, wrote the manuscript.

**Contributions by Dr. Manne:** Provided suggestions for experiments, reviewed the results, and reviewed the manuscript.

Contributions by Dr. Samuel: Participated in weekly inter-laboratory conferences and discussions on the project, provided suggestions about the experiments, and reviewed the manuscript.

Contributions by Dr. Bumpers: Participated in weekly inter-laboratory conferences and discussions on the project, provided samples for analysis, provided suggestions about the experiments, and reviewed the manuscript.

Contributions by Dr. Manne: Provided suggestions for experiments, reviewed the results, and reviewed the manuscript.


Contributions by Dr. Samuel: Drafted the review.

Contributions by Dr. Manne: Reviewed the manuscript.


Contributions by Dr. Samuel: Made suggestions for experiments and read a draft of the manuscript.


Contributions by Dr. Samuel: Participated in weekly inter-laboratory conferences and discussions on the project, provided suggestions about the experiments, and reviewed the manuscript.

Contributions by Dr. Manne: Provided suggestions for experiments, reviewed the results, and reviewed the manuscript.


Contributions by Dr. Samuel: See above.

Contributions by Dr. Manne: See above.


Presentations:

1. Apalangya, V.; Fadlalla, K.; Samuel, T.; Rangari, V.; Shaik, J. Hydroxyapatite composite nanofibers for tissue engineering. 13th Annual Biomedical Research Symposium, College of Veterinary Medicine, Nursing and Allied Health, Tuskegee University, Tuskegee, AL, September 20-21, 2012, poster.

2. Benjamin, S.; Fadlalla, K.; Patterson, Z.; Yehualashet, T.; Samuel T.; Anti-microbial activities of indole-3-carbinol and related compounds. 13th Annual Biomedical Research Symposium, College of Veterinary Medicine, Nursing and Allied Health, Tuskegee University, Tuskegee, AL, September 20-21, 2012, poster.


20. **Samuel, T.** Molecular characterization of aggressive colon cancers of African-American patients. Presented at the MSM/TU/UAB CCC Summer Institute held on July 24, 2013, Atlanta, GA.


23. **Samuel, T.** Molecular characterization of aggressive colon cancers of African-American patients. Presented to the Partnership Advisory Council on December 9, 2013, at Atlanta, GA.


25. **Samuel, T.** Molecular characterization of aggressive colon cancers of African-American patients. Presented at the meeting of the Program Steering Committee on March 26, 2014, in Birmingham, AL.


Proposals:

1. **Samuel, T.; Manne, U.** SC3 - Quercetin as an enhancer of the efficacy of 5-FU in mouse models of colon cancer. **Funded.**

2. **Samuel, T.; Manne, U.** R21 - Regulation of the NFkB-CXCR2 axis in camptothecin therapy for colon cancer. **Submitted.**

3. **Samuel, T. (G. Francia, PI)** RTRN - Preclinical models of circulating colon cancer cells to evaluate anti-cancer therapies. **Submitted.**

XV. Clayton Yates (TU) and William Grizzle (UAB) - Kaiso as a Prognostic Factor and Potential Therapeutic Target in Breast Cancer. (Funding period: 9/1/11-8/31/14)

Publications:

Contributions by Dr. Yates: Conceived the idea, supervised the laboratory work, drafted the manuscript, and accomplished its revision for publication.


Contributions by Dr. Yates: Developed the idea with Dr. Grizzle, supervised the work, prepared a draft of the manuscript, and assisted in revision of the manuscript.

Contributions by Dr. Grizzle: Developed the idea with Dr. Yates, reviewed a draft of the manuscript, and assisted in revision of the manuscript.


Contributions by Dr. Yates: Developed the idea with Dr. Grizzle, supervised the work, prepared a draft of the manuscript, and assisted in revision of the manuscript.

Contributions by Dr. Grizzle: Developed the idea with Dr. Yates, reviewed a draft of the manuscript, and assisted in revision of the manuscript.


Contributions by Dr. Yates: Developed the idea with Dr. Grizzle, supervised the work, prepared a draft of the manuscript, and assisted in revision of the manuscript.

Contributions by Dr. Grizzle: Developed the idea with Dr. Yates, reviewed a draft of the manuscript, and assisted in revision of the manuscript.


Presentations:


6. Yates, C. Kaiso as a Prognostic Factor and Potential Therapeutic Target in Breast Cancer. Presented at the MSM/TU/UAB CCC Summer Institute held on July 24, 2013, Atlanta, GA.


8. Yates, C. Kaiso as a prognostic factor and potential therapeutic target in breast cancer. Presented to the Partnership Advisory Council on December 9, 2013, at Atlanta, GA.


11. Yates, C. Kaiso as a prognostic factor and potential therapeutic target in breast cancer. Presented at the meeting of the Program Steering Committee on March 26, 2014, in Birmingham, AL.


Proposals:

1. PI: Reams, R. (FAMU), co-PI; Yates, C. NIH R21, Title: Validation of ABCD3 expression in African American prostate cancer patients. 3/1/2013-2/28/15. The goal of this project is to determine ABCD3 expression in African American prostate cancer patients. The role of the Yates laboratory is to explore the regulation of ABCD3 expression in the EGFR signaling pathway. Not funded.

2. PI: Yates, C., co-PI, Grizzle, W. DoD, Title: Transcriptional repressor Kaiso promotes metastasis through the epithelial to mesenchymal transition. 3/1/12-3/31/2015. Funded.

3. PI: Reams, R. (FAMU), Co-PI, Yates, C. DoD, Title: Role of ABCD3 in African American prostate cancer. 3/1/13-2/30/16. Goal of this project is to determine ABCD3 expression in African American Prostate Cancer patients. The role of the Yates laboratory is to explore the regulation of ABCD3 expression in the EGFR signaling pathway. Not funded.

4. PI: Yates, C., co-PI, Grizzle, W. NIH R01, Title: Transcriptional repressor Kaiso promotes castration resistance and metastasis through EMT. 8/1/14-7/31/19. Submitted (being revised).


9. **PI:** Yates, C. DoD BC133106 7/1/14-6/30/16. Tumor microenvironment regulation of methyl binding protein Kaiso in metastatic breast cancer. **Not funded.**

10. **PI:** Yates, C., co-PI, Grizzle, W. U54 pilot, Racial differences in the molecular characteristics of cervical cancer and response to treatment. **Funded.**

11. **Yates, C.** (PI) NCI 3U54CA118623-10S1. 9/2015-8/2016. Administrative Supplement. **Funded.**

**Reviewer:**

4. Yates, C. NIH- Urologic and Genitourinary Physiology and Pathology (UGPP) R01 applications 2013

**Patent:**


**Career development:** In process.

**XVI.** Hidayah Nicole Green (UAB) and Clayton Yates (TU) - A Multi-Cancer Platform for Selective Photo-Nano-Therapy of Malignant Tumors. (Funding period: 4/1/14-3/31/15)

**Publication:**


**Presentation:**


**Proposals:**

1. Green, H.N. Optimizing antibody and nanoparticle conjugation: the chemistry to improve cancer care. Marion Milligan Mason Award for Women in the Chemical Sciences. **Not funded.**

2. Green, H.N. A minimally invasive platform to target, image, and treat head and neck cancer. Veterans Administration. **Funded.**

**XVII.** Esther A. Suswam (UAB) and Amit K. Tiwari (TU)- Role of TTP-Lin28-let-7-axis in Colorectal Cancer Treatment Responses (Funding period: 4/1/14-3/31/15)

**Publications:**


Presentations:

Proposals:
1. **Suswam, E.A.** R21 Tristetraprolin as a novel modulator of colorectal cancer growth and metastasis.

**XVIII. Lizhong Wang (UAB) and James W. Lillard (MSM) - Association of CD24 and Progression of Prostate Cancer in African-Americans.** [Funding period: 4/1/14-3/31/15 (Pre-Pilot) and 9/1/14-8/31/16, (Pilot)]

**Publications:**

**Presentation:**

**Proposals:**
2. **Wang, L. (PI)** DOD PCRP Idea Award (PC130594). Synergistic action of FOXP3 and TSC1 pathways during tumor progression. Dates: 10/01/14 – 09/31/17. **Funded.**

3. **Wang, L. (MPI)** R21CA199586 Roles of semaphorin signaling in breast cancer racial disparities. 07/15/2015-06/30/2017. **Funded.**

XIX. **Rajesh Singh (MSM) and Santosh K. Katiyar (UAB) - Novel Nanoformulation for Prostate Cancer Treatment (Funding period: 4/1/14-3/31/15)**

**Publications:**

**Presentations:**

**Proposals:**

XIV. **Reuben Gonzalez-Perez (MSM) and Christopher Klug (UAB) – Role of leptin-Notch axis in pancreatic cancer (Funding period: 9/1/14-8/31/16)**

**Publications:**

**Presentations:**


Proposals:


XV. Veena N. Rao (MSM) and Yuchang Fu (UAB) – Altered Metabolic Switch and BRCA1-Associated Cancers (Funding period: 9/1/14-8/31/16)

Publications:


Presentations:

1. Xu, J.; Aysola, K.; Oprea, G.; Reddy, V.; Okoli, J.; Singh, K.; Beech, D.J.; Moellering, D.; Reddy, E.S.P.; Fu, Y.; Rao, V.N. Altered metabolic switch and BRCA1 associated cancers” presented at the PAC meeting held on Jan 15-16, 2015, Kellogg Conference Center, Tuskegee University, Alabama.

2. Xu, J.; Agyemang, S.; Aysola, K.; Desai, A.; Akinbobuyi, O.; White, M.; Oprea, G.; Okoli, J.; Clark, C.; Fu, Y.; Moellering, D.; Singh, K.; Beech, D.; Reddy, E.S.P.; Rao, V.N. Molecular mechanism linking BRCAness to HGSEOC with increasing peritoneal permeability and ascites. Presented at the Curtis Parker student research day on February 11, 2015, NCPC Bldg, Morehouse School of Medicine, Atlanta, Georgia.

XX. Amit K. Tiwari (TU) and Keshav Singh (UAB) - Targeting Mitochondrial Dynamics for TNBC Therapy (Funding period: 9/1/14-8/31/16) converted to:

Mohamed Abdalla (TU) and Keshav Singh (UAB) – Dual Targeting Nanoscale Drug Delivery Systems for Treatment of Metastatic Prostate Cancer (Funding period: 9/1/14-8/31/16)

Publication:


Grant proposal:

XXI.  Clayton Yates (TU) and William Grizzle (UAB) – Racial differences in exosome signaling promote tumor aggressiveness in African American breast cancers (Funding period: 9/1/14-8/31/16)

Presentations:

XXII.  Roland Matthews (MSM) and Chandrika Piyathilake (UAB) - Racial Differences in the Molecular Characteristics of Cervical Cancer (Funding period: 9/1/14-8/31/16)

Presentation: