**Tanya Stoyanova, PhD, Assistant Professor of Radiology, Stanford University**

**Biography:** Dr. Stoyanova received her Ph.D. in Biochemistry and Molecular Genetics at the University of Illinois, Chicago in Dr. Pardip Raychaudhuri's laboratory in July 2009, followed by a postdoctoral fellowship in prostate cancer biology at the University of California, Los Angeles in the laboratory of Dr. Owen Witte. In November 2015, Dr. Stoyanova joined the Department of Radiology and the Canary Center for Cancer Early Detection at Stanford University as an Assistant Professor. Stoyanova laboratory's research focuses on understanding fundamental molecular mechanisms underlying the development of prostate cancer and their utility as biomarkers and therapeutic targets. The impact of her research has been recognized by multiple awards including the Prostate Cancer Foundation Young Investigator Award, National Institutes of Health Pathway to Independence Award, Department of Defense Idea Development Award, Stanford McCormick and Gabilan Faculty Award and most recently, the National Institutes of Health/National Cancer Institute R37 MERIT Award and the 2020 SBUR Young Investigator Award. Dr. Stoyanova has been funded by NIH, Department of Defense, CRUK and Prostate Cancer Foundation. She currently serves as a PI on NIH/NCI R01 grant and NIH/NCI R37 MERIT Award. Dr. Stoyanova has served on numerous review panels for the NIH, Department of Defense, Prostate Cancer UK, Prostate Cancer Foundation, International Alliance for Early Cancer Detection and Florida Department of Health Biomedical Research Program. Dr. Stoyanova is a reviewer for multiple journals.

**Research Interests:** Dr. Stoyanova's research program focuses on understanding fundamental molecular mechanisms underlying the development of epithelial cancers and their potential as biomarkers and therapeutic targets. A major focus of her research is in prostate cancer as well as breast and neuroendocrine cancers. The ultimate goals of her laboratory are to: 1) improve the stratification of indolent from aggressive prostate cancer and 2) guide the development of novel and effective therapeutic strategies for metastatic cancers. The research in Stoyanova lab has led to the discovery of new mechanisms underlying the development of aggressive prostate cancer and biomarkers for significant disease as well as new therapies for prostate cancer. Stoyanova lab recently identified a cell surface receptor protein, Trop2, as a new driver of neuroendocrine prostate cancer (NEPC) and further demonstrated that PARP1 is a Trop2 downstream mediator and PARP inhibitors may represent a therapeutic strategy for NEPC. Through proteomic profiling of NEPC, Dr. Stoyanova identified multiple druggable targets of NEPC that are currently being tested in her lab. Dr. Stoyanova also develops novel therapeutic approaches for late stage prostate and breast cancers. Her lab utilizes two antibody-based strategies for targeted therapies: humanized anti-Trop2 antibodies (Abs) and anti-Notch1 antibodies and demonstrated their therapeutic potential in pre-clinical models of prostate and breast cancer. Additionally, Dr. Stoyanova's lab identified small molecule ferroptosis inducers as a new therapeutic strategy for advanced prostate cancer and in collaboration with Dr. Malhotra has identified a new compound as a small molecule inhibitor targeting cancer metabolism in advanced prostate cancer. Another major focus in the lab is also defining new tissue, blood, and urine-based biomarkers for significant prostate cancer. Her lab recently discovered that high levels of Trop2 may serve as a biomarker for unfavorable outcomes in prostate cancer early on. Dr. Stoyanova has also undertaken a new discovery approach to define informative minimally invasive biomarkers that can be used to assist with the diagnosis of clinically significant prostate cancer and to predict risk of disease progression. Proteomic studies from her lab identified a lead blood-based biomarker candidate for early detection of significant disease, pleiotrophin (PTN), and eight candidate biomarkers for metastatic disease.

**Vision Statement:** I have been an active SBUR member since 2015. I serve on several SBUR committees including SBUR/AJCEU publications committee and media/website committee. I will be serving as a co-chair for the Trainee Symposium during the 2021 SBUR Annual meeting. I am committed to the career development of trainees and early career investigators. If I am given the exceptional opportunity to serve as Director-at-Large, I plan on putting effort in increasing participation, SBUR membership and diversity. I am fully committed to the training and career development of the next generation scientists. I envision to continue and strengthen the support for our trainees. I envision creating trainee day that incorporates networking events, grant writing and faculty application workshops for trainees. Additionally, I envision creating a network of established investigators and trainees and organize SBUR online research forums to enhance and broaden trainees' networking and foster collaboration across clinicians and basic scientists. I will also be committed to expand the research expertise among SBUR members and participants. I look forward to many more years of being a part of the SBUR and to contribute to the growth of the society.

**TANYA STOYANOVA Ph.D.**
**Assistant Professor**
**Department of Radiology**
**Stanford University**
**School of Medicine**
**Canary Center for Cancer Early Detection**
**3155 Porter Drive**
**Palo Alto, CA 94304**
**E-mail: stanya@stanford.edu**
**10/30/2020**

## I. EDUCATION

| | |
|---|---|
| Postdoctoral Fellowship<br>Oct 2015 | Cancer and Stem Cell Biology, University of California, Los Angeles, CA USA<br>Mentor: Prof. Owen Witte |
| Ph.D.<br>July 2009 | Biochemistry and Molecular Genetics, University of Illinois, Chicago, IL USA<br>Mentor: Prof. Pradip Raychaudhuri |
| B.S.<br>May 2003 | Genetics, University of Kansas, Lawrence, KS, USA |
| B.S.<br>Sep 2001 | Ecology and Protection of the Environment, Technical University of Varna, Varna, Bulgaria |

## II. PROFESSIONAL APPOINTMENTS

| | |
|---|---|
| 11/1/2015-Present | Assistant Professor. Department of Radiology. Stanford University |
| 2009-2015 | Postdoctoral Fellow. Prof. Owen Witte. Department of Immunology, Microbiology and Molecular Genetics. University of California, Los Angeles, CA |
| 2003-2009 | Graduate Research Assistant. Prof. Pradip Raychaudhuri. Department of Biochemistry and Molecular Genetics, University of Illinois. Chicago, IL |
| 2002 | Research Assistant. Prof. Susan Egan. Department of Molecular Biosciences. University of Kansas, Lawrence, KS |
| 2001-2003 | Laboratory Assistant. Prof. Julie Campbell. Department of Biology. University of Kansas, Lawrence, KS |

## III. HONORS, AWARDS AND PROFESSIONAL DEVELOPMENT

### Professional Development

July 2019 AAMC Early Career Women Faculty Leadership Development Seminar

### Honors and Awards

2020 Society of Basic Urologic Research Young Investigator Award

2020-2027 NIH/NCI R37 MERIT Award. National Institute of Health/National Cancer Institute

2018-2020 2018 Department of Defense, Prostate Cancer Research Program Idea Development Award

2016-2018 Stanford University School of Medicine McCormick and Gabilan Faculty Award

2014-2019 K99/R00 Pathway to Independence Award. National Institute of Health/National Cancer Institute

2014-2017 2014 Stewart Rahr Prostate Cancer Foundation Young Investigator Award. Prostate Cancer Foundation

2014 Chancellor's Award for Postdoctoral Research. University of California, Los Angeles, CA

2014 2014 Department of Pharmacology Retreat Award. University of California, Los Angeles, CA

2012-2014 Postdoctoral Fellowship. Prostate Cancer Research Program, Department of Defense

2010-2012 Postdoctoral Fellowship. California Institute for Regenerative Medicine

2008 SIGMA Xi Student Research Forum Award for Graduate and Professional Students 2008. University of Illinois, Chicago, IL

2007 SIGMA Xi Student Research Forum Award for Graduate and Professional Students 2007. University of Illinois, Chicago, IL

2003 Sally K. Frost Mason and Kenneth A. Mason Outstanding Senior 2003. Division of Biological Sciences at the University of Kansas, Lawrence, KS

2003 Sally Frost Mason Outstanding Woman Student in Biological Sciences 2003. University of Kansas, Lawrence, KS

2001-2002 Ruben Zadigan Environmental Studies Scholarship. University of Kansas, Lawrence, KS

## IV. SCHOLARLY PUBLICATIONS

### Peer-Reviewed Publications (Original Research)

1. Li D, Liu Q, Qi Q, Shi H, Hsu EC, Chen W, Yuan W, Wu Y, Lin S, Zeng Y, Xiao Z, Xu L, Zhang Y, **Stoyanova T**, Jia W, Cheng Z. Gold nanoclusters for NIR-II fluorescence imaging of bones. Small. 2020 Oct;16(43):e2003851. PMID: 33000882

2. Hsu EC, Rice MA, Bermudez A, Fernando Marques F, Aslan M, Ghoochani A, Zhang A, Chen Y, Zlitni A, Habte F, Kumar S, Nolley R, Peehl DM, Zoubeidi A, Gambhir SS, Kunder C, Pitteri SJ, Brooks JD, **Stoyanova T[#].** (2020). Trop2 is a driver of metastatic prostate cancer with neuroendocrine phenotype via PARP1. ***Proc Natl Acad Sci USA (PNAS).*** 117(4):2032-2042. PMID: 31932422
   **#Corresponding/Senior author**

3. Rice MA, Hsu E, Aslan M, Ghoochani A, Su A, **Stoyanova T[#]**. (2019). Loss of Notch1 activity inhibits prostate cancer growth and sensitizes castration resistant cells to anti-androgen therapies. ***Molecular Cancer Therapeutics***. MCT-18-0804. PMID: 31028097
   **#Corresponding/Senior author**

4. Going C, Tailor D, Kumar V, Birk A, Pandrala M, Rice M, **Stoyanova T**, Malhotra S, Pitteri S. (2018). Quantitative proteomic profiling reveals key pathways in the anti-cancer action of methoxychalcone derivatives in triple negative breast cancer. ***Journal of Proteome Research.*** 17(10):3574-3585. PMID: 30200768

5. Liu F, Vermesh O, Mani V, Ge TJ, Madsen SJ, Sabour A, Hsu EC, Gowrishankar G, Kanada M, Jokerst JV, Sierra RG, Chang E, Lau K, Sridhar K, Bermudez A, Pitteri SJ, **Stoyanova T**, Sinclair R, Nair VS, Gambhir SS, Demirci U. (2017). The Exosome Total Isolation Chip. ***ACS Nano***. 11(11):10712-10723. PMID: 29090896

6. Liu X, Grogan TR, Hieronymus H, Hashimoto T, Mottahedeh J, Cheng D, Zhang L, Huang K, **Stoyanova T**, Park JW, Shkhyan RO, Nowroozizadeh B, Rettig MB, Sawyers CL, Elashoff D, Horvath S, Huang J, Witte ON, Goldstein AS (2016). Low CD38 Identifies Progenitor-like Inflammation-Associated Luminal Cells that Can Initiate Human Prostate Cancer and Predict Poor Outcome. ***Cell Rep.*** 17(10):2596-2606. PMID: 27926864

7. **Stoyanova T[#]**, Riedinger, M, Lin S, Faltermeier C, Smith BA, Zhang KX, Going CC, Goldstein AS, Lee JK, Drake JM, Rice M, Hsu E, Nowroozizadeh B, Castor B, Orellana SY, Blum S, Cheng D, Pienta KJ, Reiter RE, Pitteri SJ, Huang J and Witte ON[#] (2016). Activation of Notch1 synergizes with multiple pathways in promoting castration-resistant prostate cancer. ***Proc Natl Acad Sci U S A (PNAS)***. pii: 201614529. PMID: 27694579
   **#Corresponding/Senior authors**

8. Drake JM, Paull EO, Graham NA, Lee JK, Smith BA, Titz B, **Stoyanova T**, Faltermeier CM, Carlin DE, Sudha S, Vashisht AA, Huang J, Wohlschlegel JA, Pienta KJ, Graeber TG, Stuart JM and Witte ON (2016). Development of Patient-Specific Druggable networks in lethal prostate cancer through MultiOmic dataset Integration. ***Cell.***166(4):1041-54. PMID: 27499020

9. Lee JK, Phillips JW, Smith BA, Park JW, **Stoyanova T**, McCaffrey EF, Baertsch R, Sokolov A, Meyerowitz JG, Mathis C, Cheng D, Stuart JM, Shokat KM, Gustafson WC, Huang J, Witte ON (2016). N-Myc Drives Neuroendocrine Prostate Cancer Initiated from Human Prostate Epithelial Cells. ***Cancer Cell***. 29(4):536-47. PMID: 27050099'

10. Ju X, Jiao X, Ertel A, Casimiro MC, Di Sante G, Deng S, Li Z, Di Rocco A, Zhan T, Hawkins A, **Stoyanova T**, Ando S, Fatatis A, Lisanti MP, Gomella LG, Languino LR, Pestell RG (2016). Src Oncogene Induces Trop2 Proteolytic Activation via Cyclin D1. ***Cancer Res****.* pii: canres.3327.2015. PMID: 27634768

11. **Stoyanova T**, Cooper AR, Drake JM, Liu X, Armstrong AJ, Zhang H, Kohn DB, Huang J, Witte ON and Goldstein AS (2013). Prostate cancer originating in basal cells progresses to adenocarcinoma propagated by luminal-like cells. ***Proc Natl Acad Sci U S A (PNAS)***. 110(50):20111-6. PMCID: PMC3864278

12. Drake JM, Graham NA, Lee JK, **Stoyanova T**, Faltermeier CM, Sud S, Titz B, Huang J, Pienta KJ, Graeber TG, Witte ON (2013). Metastatic castration-resistant prostate cancer reveals intrapatient similarity and interpatient heterogeneity of therapeutic kinase targets. ***Proc Natl Acad Sci U S A (PNAS).*** 110(49):E4762-9. PMCID:PMC3856845

13. **Stoyanova T**, Goldstein AS, Cai H, Drake JM, Huang J and Witte ON (2012). Regulated proteolysis of Trop2 drives epithelial hyperplasia and stem cell self-renewal via beta-catenin signaling. ***Genes Dev***. 26(20):2271-85. PMCID: PMC3475800

14. Cai H, Memarzadeh S, **Stoyanova T**, Beharry Z, Kraft AS, Witte ON (2012). Collaboration of Kras and Androgen Receptor Signaling Stimulates EZH2 Expression and Tumor-Propagating Cells in Prostate Cancer. ***Cancer Res***. 72(18):4672-4681. PMCID: PMC3445707

15. Drake JM, Graham NA, **Stoyanova T**, Sedghi A, Goldstein AS, Cai H, Smith DA, Zhang H, Komisopoulou E, Huang J, Graeber TG, Witte ON (2012). Oncogene-specific activation of tyrosine kinase networks during prostate cancer progression. ***Proc Natl Acad Sci U S A (PNAS)****.* 109(5):1643-8. PMCID: PMC3277127

16. **Stoyanova T**, Roy N, Bhattacharjee S, Kopanja D, Valli T, Bagchi S, Raychaudhuri P (2012). p21 cooperates with DDB2 protein in suppression of ultraviolet ray-induced skin malignancies. ***J Biol Chem***. 287(5):3019-28. PMCID: PMC3270959

17. Kopanja D, Roy N, **Stoyanova T**, Hess R, Bagchi S and Raycahudhuri P (2011). Cul4A is essential for spermatogenesis and male fertility. ***Dev Biol****.* 352(2):278-87. PMCID: PMC3065526

18. **Stoyanova T**, Roy N, Kopanja D, Bagchi S and Raychaudhuri P (2009). DDB2 (Damaged-DNA binding protein 2) in nucleotide excision repair and DNA damage response. ***Cell Cycle***. 8(24):4067-71. PMCID: PMC3107032

19. **Stoyanova T**, Roy N, Kopanja D, Bagchi S and Raychaudhuri P (2009). DDB2 Decides Cell Fate Following DNA Damage. ***Proc Natl Acad Sci U S A (PNAS)****.* 106(26): 10690-5. PMCID: PMC2705479

20. Kopanja D, **Stoyanova T**, Okur NM, Bagchi S and Raychaudhuri P (2009). Proliferation Defect and Genome Instability in Cells Lacking Cul4A. ***Oncogene****.* 28(26): 2456-65. PMCID: PMC2705559

21. **Stoyanova T**, Yoon T, Kopanja D, Mokyr MB, Raychaudhuri P (2008). The xeroderma pigmentosum group E gene product DDB2 activates nucleotide excision repair by regulating the level of p21Waf1/Cip1. ***Mol Cell Biol****.* 28(1): 177-87. PMCID: PMC2223305

**Peer-Reviewed Publications (Original Research), Accepted and Under Consideration**

1. Buckup M, Rice MA, Hsu EC, Garcia-Marques F, Shiqin Liu, Aslan M, Bermudez A, Huang J, Pitteri SJ, Stoyanova T[#]. Plectin is a Regulator of Prostate Cancer Growth and Metastasis. ***Accepted, Oncogene***
   **#Corresponding/Senior author**

2. Tailor D, Going C, Resendez A, Kumar V, Nambiar D, Li Y, LaGory E, Ghoochani A, Birk A, **Stoyanova T**, Ye J, Giaccia A, Le QT, Singh R, Sledge G, Pitteri SJ, Malhotra SV. Novel Aza-podophyllotoxin Induces Oxidative Phosphorylation and Cell Death via Direct AMPK Activation in Triple Negative Breast Cancer. ***Accepted, British Journal of Cancer***

3. Hsu EC, Shen M, Aslan M, Liu S, Garcia Marques F, Nguyen HM, Pitteri SJ, Corey E, Brooks JD, Tanya **Stoyanova T[#].** MCM2-7 complex is a novel druggable target for neuroendocrine prostate cancer. ***Under Review in Molecular Therapy***
   **#Corresponding/Senior author**

4. Ghoochani A, Hsu EC, Aslan M, Rice MA, Nguyen HM, Brooks JD, Corey E, Ramasamy Paulmurugan R[#], **Stoyanova T[#].** Ferroptosis inducers are a novel therapeutic approach for advanced prostate cancer. ***Under Review in Cancer Research***
   **#Corresponding/Senior authors**

5. Liu S, Shen M, Hsu EC, Zhang CA, Garcia-Marques F, Nolley R, Koul K, Rice MA, Aslan MA, Pitteri SJ, Massie C, George A, Brooks JD, Gnanapragasam VJ[#], **Stoyanova T[#].** Discovery of PTN as a blood-based biomarker of pro-metastatic prostate cancer. ***Revised for British Journal of Cancer***
   **#Corresponding/Senior authors**

6. Rice MA[1], Kumar V[1], Tailor D, Garcia-Marques FJ, Bermudez A, Kanchustambham V, Shankar V, Inde Z, Pandrala M, Nolley R, Ghoochani A, Liu S, Aslan M, Agarwal A, Buckup M, Hsu1 E, Going CC, Peehl DM, Dixon SJ, Zare RN, Brooks JD, Pitteri SJ, Malhotra SV[#], **Stoyanova T[#]**. Identifying a Novel Glycolytic Inhibitor for Treatment of Aggressive Prostate Cancer. ***Under Review in Oncogene***
   [1] equality contributed
   **#Corresponding/Senior authors**

7. Xie J[1], Rice MA[1], Chen Z, Cheng Y, Hsu EC, Chen M, Song G, Cui L, Zhou K, Castillo JB, Zhang CA, Shen B, Chin FT, Kunder CA, Brooks JD, **Stoyanova T[#],** Rao J[#.] In vivo imaging of methionine aminopeptidase II for prostate cancer risk stratification. ***Under revision for Cancer Research***
   [1] equality contributed
   **#Corresponding/Senior authors**

8. Chen YS, Zhao Y, Beinat C, Zlitni A, Hsu E, Chen DH, **Stoyanova T**, Dionne J, Gambhir SS. Ultra-High-Frequency-Radio-Frequency-Acoustic molecular imaging with saline nanodroplets in living subjects. ***Under Revision for Nature Nanotechnology***

**Peer-Reviewed Publications (Reviews and Commentaries)**

1. Rice MA, Malhotra S, **Stoyanova T[#]** (2019). Second-generation antiandrogens in castration resistant prostate cancer. ***Frontiers in Oncology.*** PMID: 31555580
   **#Corresponding/Senior author**

2. Miyahira AK, Lang JM, Den RB, Garraway IP, Lotan TL, Ross AE, **Stoyanova T***, Cho SY, Simons JW, Pienta KJ, Soule HR (2016). Multidisciplinary intervention of early, lethal metastatic prostate cancer: Report from the 2015 Coffey-Holden Prostate Cancer Academy Meeting. ***Prostate.*** 76(2):125-39. PMID: 26477609

3. **Stoyanova T**, Goldstein AS (2014). Distinct phases of human prostate cancer initiation and progression can be driven by different cell-types. ***Cancer Cell & Microenvironment***. 1(3). pii:e90 PMCID:PMC4441270

4. **Stoyanova TI**, Goldstein AS (2013). Identification, characterization and targeting of Docetaxel-resistant prostate cancer cells. ***Asian J Androl.*** 15(1):83-4. PMCID: PMC3739119

5. Goldstein A, **Stoyanova T** and Witte ON (2010). Primitive origins of prostate cancer. In vivo evidence for prostate-regenerating and prostate cancer-initiating cells. ***Molecular Oncology.*** 4(5):385-96. PMCID: PMC2939195

6. **Book Chapters, 1 Published**

   Rice M, **Stoyanova T**[#]. (2018). Biomarkers for Diagnosis and Prognosis of Prostate Cancer. Book chapter. ***Prostatectomy*****.** Intech Open

   **#Corresponding/Senior author**

## V. Editorial Service

### Editorial Boards

Associate Editorial Board Member. American Journal of Clinical and Experimental Urology (2017-present)

Associate Editor. Frontiers in Oncology (2020-present)

### Peer review activities for scientific journals (2014-current)

Proceedings of the National Academy of Sciences
Genes and Development
PLoS Genetics
Federation of European Biochemical Societies
Molecular Cancer Therapeutics
PloS One
Scientific Reports
Cancer Reports
Cell Biology and Toxicology
Oncogene
OncoTargets and Therapy
Clinical and Translational Medicine
Molecular Therapy

## VI. RESEARCH SUPPORT (GRANTS)

### Current Funding

**1. National Institutes of Health/NCI R37 MERIT Award (PI: Stoyanova)** 04/01/2020-03/31/2027

*Elucidating the Role of Trop2 in Prostate Cancer*

The goals of the proposed project are to evaluate the role of Trop2 signaling in aggressive prostate cancer, define novel mechanisms through which Trop2 contributes to the development of the advanced disease and test new strategies to inhibit Trop2 function in cancer.

Role: PI

**2. National Institutes of Health/NCI R01 (PI: Stoyanova)** 07/01/2020-06/30/2025

*Elucidating the Role of UCHL1 in Aggressive Prostate Cancer*

The major goals of the proposed project are to: 1) to test the functional role of UCHL1 in NEPC and prostate cancer metastasis, 2) define new mechanisms through which UCHL1 functions in prostate cancer and 3) assess the therapeutic potential of UCHL1 inhibition in NEPC in pre-clinical settings utilizing patient-derived xenograft (PDX) models of NEPC.

Role: PI

**3. National Institutes of Health/NCI R01 (PI: Iagaru)** 08/01/2019-07/31/2024

*Evaluation of Patients with Low-Risk and Intermediate-Risk Prostate Cancer Scheduled for High-Dose Rate Brachytherapy Using 68Ga-RM2 PET, 68Ga-PSMA-11 PET and Multi Parametric MRI*

Role: Co-investigator

**Prior Funding**

**1. NIH R03 (PI: Stoyanova)** 08/01/2018-07/31/2020

*Elucidating Novel Mechanisms Underlying Prostate Cancer Development*

The goals of the proposed research are to: 1) investigate the molecular mechanisms through which Trop2 contributes to the development of the aggressive disease and 2) develop new inhibitors to block Trop2 function as a novel therapeutic strategy for advanced prostate cancer.

Role: PI

**2. Department of Defense Idea Development Award (PI: Stoyanova)** 09/01/2018-03/31/2020

*Trop2 as a Novel Driver and Therapeutic Target for Castration-Resistant Prostate Cancer*

The major goal of the proposed project is to define new therapeutic strategies for advanced prostate cancer. We propose to assess the therapeutic potential of novel humanized anti-Trop2 antibodies.

Role: PI

**3. Department of Defense Early Investigator Award (PI: Rice)** 09/01/2018-08/31/2020

*Defining the Role and Therapeutic Potential of Notch Signaling in Aggressive Prostate Cancer*
The overall goal of this proposal is to investigate the role of Notch signaling pathway in prostate cancer to understand the mechanism through which Notch can drive the aggressive disease and determine the requirement of Notch for tumor maintenance. Additionally, we will test new treatment strategies involving two types of Notch inhibitors alone, and in combination with current standard of care treatments for castration resistant disease.

Role: Primary Mentor

**4. Department of Defense Early Investigator Award (PI: Ghoochani)** 09/01/2019-02/09/2020

*Ferroptosis Induction is a Novel Therapeutic Strategy for Advanced Prostate Cancer*

The overall goal of the proposed research is to assess the therapeutic potential of ferroptosis induction by erastin treatment in advanced prostate cancer. We will also evaluate the therapeutic potential of ferroptosis induction in combination with FDA approved second-generation anti-androgens enzalutamide and abiraterone.

Role: Primary Mentor

**5. CRUK Cambridge/Canary Center Joint Pump priming (PIs: Stoyanova and Gnanapragasam)** 02/01/18-01/31/20

*A multi-modal approach to discover novel blood-based biomarkers for early detection of poor prognosis prostate cancer*

The goal of the proposed project is to discover new informative minimally invasive biomarkers that can be used to assist in the diagnosis of clinically significant disease and to predict risk of disease progression.

Role: PI

**6. Big H Foundation Seed Grant (PIs: Stoyanova and Demirci)** 12/01/18-11/30/19

*Detecting cancer using a mobile on-chip platform*

The goal of the proposed project is to develop and validate a portable, inexpensive, rapid point-of-care device to detect cancer early by monitoring cancer related biomarker, Trop2 protein that sheds from cancer in patient blood and urine.

Role: PI

**7. K99/R00 NIH/NCI Pathway to Independence Award** (**PI: Stoyanova**) 12/01/15-11/30/18
National Cancer Institute 4R00CA18439

*Proteolytically Cleaved Receptors as Oncogenes and Therapeutic Targets*

The goals of the proposed research are to investigate the functional cooperation between Trop2 and Notch1 receptors in prostate tumorigenesis and cancer stem cells, define new downstream transcriptional targets of Trop2, identify the biochemical relationship between Trop2 and Notch1 signaling.

Role: PI

**8. 2014 Stewart Rahr Prostate Cancer Foundation Young Investigator Award (PI: Stoyanova)**
03/01/14-2/28/18

*The Role of Notch Receptors in Advanced Castration Resistant Prostate Cancer*

The goal of the project is to test the functional role of Notch1 receptor in combination with other pathways commonly altered in prostate cancer such as kRas, myrAKT and Myc in prostate cancer initiation, progression and metastasis. The proposed research will characterize the differential signaling networks in distinct Notch1 driven tumors.

Role: PI

**9. McCormick and Gabilan Faculty Award (PI: Stoyanova)** 10/01/16-09/30/17
2016 McCormick and Gabilan Faculty Award, Stanford University School of Medicine

*Defining novel molecular mechanisms and therapeutic targets for advanced prostate cancer*

The goal of this proposal is to assess the mechanism through which Notch1 regulates Androgen Receptor (AR).

Role: PI

**10. Canary Seed Grant (PIs: Stoyanova, Peehl, Brooks)** 10/01/16-09/30/17

*Evaluation of cleaved Trop2 as a serum biomarker for prostate cancer*

The goal of the study is to develop in vitro assay to detect shed Trop2 in serum from prostate cancer patients and evaluate whether shed Trop2 may serve as a new minimally-invasive diagnostic biomarker for clinically significant disease and predict risk of progression at diagnosis.

Role: PI

**11. Canary Seed Grant (PIs: Stoyanova, Demirci, Pitteri, Brooks)** 10/01/16-09/30/17

*Investigating the Utility of Exosomes for Prostate Cancer Early Detection*

The goal of the proposed research is to examine the utility and significance of exosomal proteins as novel biomarkers for early detection of high-risk prostate cancer.
Role: PI

**12. Department of Defense (PI: Stoyanova)** 07/01/2012 - 06/30/2014
Prostate Cancer Research Program W81XWM-11-PCRP-PTA

*The Role of Trop2 Cleavage Products in Prostate Tumorigenesis*

The goal of this project is to interrogate the functional role of cleaved Trop2 in prostate stem cells and carcinogenesis and the molecular mechanism through which Trop2 regulates prostate tumorigenesis.

Role: PI

## VII. PATENTS

**1. U.S. Application Serial No. 63/023,031**. Meghan A. Rice, Vineet Kumar, Dhanir Tailor, Sanjay V. Malhotra, Tanya Stoyanova. Methoxychalcone Derivatives and Uses Thereof (Filed May 2020).

## VIII. GRANT REVIEWER SERVICE

**Peer reviewer activities for study sections**

1. National Institutes of Health. National Cancer Institute. Tumor Cell Biology Study Section (TCB) peer review panel reviewer (2020)

2. National Institutes of Health. National Cancer Institute. Mechanisms of Cancer Therapeutics-2 Study Section (MCT-2) peer review panel reviewer (2020)

3. International Alliance for Early Cancer Detection (ACED). Peer review panel reviewer (2020)

4. Prostate Cancer UK. Peer review panel reviewer (2019)

5. Florida Department of Health Biomedical Research Programs 2019-2020. Peer review panel reviewer (2019)

6. 2019 Prostate Cancer Research Program (PCRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP) Idea Development Award. Peer review panel reviewer (2019)

7. National Institutes of Health. National Cancer Institute. Tumor Cell Biology Study Section (TCB) peer review panel reviewer (2019)

8. National Institutes of Health. National Cancer Institute Cancer. Molecular Pathobiology Study Section (CAMP) peer review panel reviewer (2018)

9. 2018 Prostate Cancer Research Program (PCRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP) Idea Development Award. Peer review panel reviewer (2018)

10. 2017 Prostate Cancer Research Program (PCRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP) Idea Development Award. Peer review panel reviewer (2017)

11. 2016 Prostate Cancer Research Program (PCRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP) Idea Development Award. Peer review panel reviewer (2016)

12. Prostate Cancer UK. Peer review panel reviewer (2016)

13. Prostate Cancer Foundation research award review committee member. Basic science reviewer (2015-present)

## IX. UNIVERSITY ADMINISTRATIVE SERVICE

### Committee Service

1. File Review Admissions Sub-Committee for Stanford University MD Admissions. Stanford Medicine Office of MD Admissions (2020-2021)

2. Diversity Committee member. Department of Radiology, Stanford University (2017-present)

3. Faculty Search committee member. Department of Radiology, Canary Center at Stanford for Cancer Early Detection (2018-2019)

4. MD Admissions Multiple Mini Interview sub-committee. Served as a rater (2018-2019)

5. Chair of thesis committee and thesis committee member for Jack Silberstein, Ph.D. student in Immunology (2018-present)

6. Faculty Search committee member. Department of Radiology, Canary Center at Stanford for Cancer Early Detection (2017-2018)

7. Faculty Search committee member. Department of Radiology, Canary Center at Stanford for Cancer Early Detection (2016-2017)

### Leadership Roles

1. Leading Monthly Research Mixer. Department of Radiology, Stanford University. (2019-present)

### Educational Presentations

1. Cancer Biology Lecture. Canary Center Summer Internship Program. Stanford University. June 28, 2018

2. Stanford Grant Writing Academy Lecture. Write a Responsive 1-page Introduction for the Resubmission Application. Stanford University. December 12, 2017

## X. SERVICE TO PROFESSIONAL ORGANIZATIONS

### Organizing Scientific Conferences

1. Organizing committee member. 27th Annual Prostate Cancer Foundation Virtual Scientific Retreat Young Investigator Day (2020)

2. Organizing committee member and Session Chair. 2019 Early Detection of Cancer Conference (2019)

3. Organizing committee member and Session Chair. 2015 Coffey-Holden Prostate Cancer Academy on Multidisciplinary Intervention of Early, Lethal Metastatic Prostate Cancer (2015)

### Committees

1. Society for Basic Urologic Research Publication Committee (2018-present)

2. Society for Basic Urologic Research Media Committee (2018-present)

### Leadership Roles

1. Tumorigenesis working group. Prostate Cancer Foundation Young Investigators community (2015-2016)

### Educational Presentations

1. Prostate Cancer Foundation Women's Forum. Junior Investigator Panel. Prostate Cancer Foundation Annual Scientific Retreat. San Diego. October 2016

### Memberships

Society for Basic Urologic Research (2015-present)
American Association for Cancer Research (2013-present)

## XI. SCIENTIFIC PRESENTATIONS AND ABSTRACTS

### Invited Talks

1. **Stoyanova T.** The Transition Path from Trainee to Faculty. 27th Annual Prostate Cancer Foundation Virtual Scientific Retreat October 20-23, 2020

2. **Stoyanova T.** Alternative mechanisms of beta-catenin regulation. WNT Signaling in Prostate Cancer Working Group. Prostate Cancer Foundation Online Seminar Series. February 6, 2020

3. **Stoyanova T.** Molecular Diagnostics & Cancer Early Detection Technologies. Radiology Joint

Retreat, Santa Cruz, CA. October 29–30, 2019

4. **Stoyanova T.** Trop2 as a Driver and Therapeutic Target for Metastatic Prostate Cancer with Neuroendocrine Phenotype. Fourth International Conference on Cancer Research and Drug Development. Baltimore. October 21-23, 2019

5. **Stoyanova T.** Trop2 is a driver and therapeutic target for metastatic castration resistant prostate cancer with neuroendocrine phenotype. 2019 Coffey-Holden Prostate Cancer Academy on Prostate Cancer Research: The Next Generation. Prostate Cancer Foundation. University of California, Los Angeles. June 20-23, 2019

6. **Stoyanova T.** Defining new drivers and therapeutic strategies for metastatic prostate cancer. Tumorigenesis Working Group. Prostate Cancer Foundation Online Seminar Series. March 2019

7. **Stoyanova T.** Defining new drivers and therapeutic targets for metastatic prostate cancer. The 3rd Leo and Anne Albert Charitable Trust Workshop on Reducing the Burden of Bone Metastatic Prostate Cancer. University of California, San Diego. February 2019

8. **Stoyanova T.** Defining new biomarkers and therapies for prostate cancer. RSL Group Meeting. Stanford University, September 5, 2018

9. **Stoyanova T.** Defining new drivers and therapeutic targets for aggressive prostate cancer. University of California, Santa Cruz. May 3, 2018

10. **Stoyanova T.** Defining new biomarkers and therapies for prostate cancer. Urology Grand Rounds. Stanford University. September 5, 2017

11. **Stoyanova T.** Defining new biomarkers and therapies for prostate cancer. BioX Summer Student Research Program. Stanford University August 23, 2017

12. **Stoyanova T.** Shed cell surface receptors as biomarkers and therapeutic targets for prostate cancer. Pathology Grand Rounds. University of Illinois at Chicago. April 10, 2017

13. **Stoyanova T.** Modeling distinct stages and drivers of prostate cancer. The 2nd Leo and Anne Albert Charitable Trust Workshop on Reducing the Burden of Bone Metastatic Prostate Cancer. University of California, San Diego. March 10, 2017

14. **Stoyanova T.** Shed cell surface receptors as biomarkers and drivers of prostate cancer. 2016 Early Detection Seminar Series. Stanford University. January 26, 2017

15. **Stoyanova T.** Proteolytically cleaved receptors as biomarkers and therapeutic targets for prostate cancer. GU Translational oncology research meeting. Stanford University. April 26, 2016

16. **Stoyanova T.** Proteolytically cleaved receptors as biomarkers and therapeutic targets for prostate cancer. Prostate Research-in-Progress Seminar Series. University of California, San Francisco. April 13, 2016

17. **Stoyanova T.** Proteolytically cleaved receptors as therapeutic targets for prostate cancer. Microenvironment and Tumor Immunology Working Group. Prostate Cancer Foundation Online Seminar Series. February 2016

18. **Stoyanova T.** Prostate cancer-tissue recombination model. 2015 Society of Basic Urologic Research Fall Symposium. Fort Lauderdale. November 12-15, 2015

19. **Stoyanova T.** Notch1 as a key mediator in promoting advanced castration-resistant prostate cancer. University of California, Los Angeles. Department of Pharmacology Annual Retreat. November 21-22, 2014

20. **Stoyanova T.** Proteolytically cleaved receptors as therapeutic targets for advanced prostate cancer. Annual Specialized Program of Research Excellence (SPORE) Research Symposium. September 8, 2014

21. **Stoyanova T.** Prostate cancer originating in basal cells progresses to adenocarcinoma propagated by luminal-like tumor-propagating cells. AACR-Prostate Cancer Foundation Conference Advances in Prostate Cancer Research. January 18-21, 2014

22. **Stoyanova T.** DDB2 decides cell fate following DNA damage. Annual Faculty Research Seminar. University of Illinois, Chicago, Department of Biochemistry and Molecular Genetics. November 1-2, 2008

**Poster Presentations and Abstracts**

1. Hsu EC, Liu S, Garcia-Marques F, Abel Bermudez A., Aslan M, Pitteri SJ, Brooks JS, **Stoyanova T**. Trop2 regulates prostate cancer growth and metastasis through distinct molecular mechanisms. 27th Annual Prostate Cancer Foundation Virtual Scientific Retreat October 20-23, 2020

2. Liu S, Shen M, Hsu EC, Zhang CA, Garcia-Marques F, Nolley R, Koul K, Rice MA, Aslan M, Pitteri SJ, Massie C, George A, Brooks JD, Gnanapragasam VJ, **Stoyanova T.** Discovery of PTN as a serum-based biomarker for early detection of significant prostate cancer. 27th Annual Prostate Cancer Foundation Virtual Scientific Retreat October 20-23, 2020

3. Hsu EC, Rice MA, Bermudez A, Garcia-Marques F, Aslan M, Liu S, Ghoochani A, Zhang AC, Yun-Sheng Chen, Zlitni A, Kumar S, Nolley R, Habte F, Shen M, Koul K, Peehl DM, Zoubeidi A, Gambhir SS, Kunder CA, Pitteri SJ, Brooks JS, **Stoyanova T**. Trop2 as a new biomarker and driver of aggressive prostate cancer. 2020 Early Detection of Cancer Conference. Virtual event. October 6-8, 2020

4. Liu S, Shen M, Hsu EC, Zhang CA, Garcia-Marques F, Nolley R, Koul K, Rice MA, Aslan M, Pitteri SJ, Massie C, George A, Brooks JD, Gnanapragasam VJ, **Stoyanova T.** Discovery of PTN as a serum-based biomarker for early detection of significant prostate cancer. 2020 Early Detection of Cancer Conference. Virtual event. October 6-8, 2020

5. Hsu E, Rice MA, Bermudez A, Garcia-Marques F, Aslan M, Ghoochani A, Aslan M, Liu S, Ghoochani A, Zhang C, Chen Y, Zlitni A, Kumar S, Nolley R, Habte F, Shen M, Koul K, Peehl D, Zoubeidi A, Gambhir SS, Kunder CA, Pitteri SJ, Brooks J, **Stoyanova T**. Trop2 as a Driver and Therapeutic Target for Metastatic Castration-Resistant Prostate Cancer with Neuroendocrine Phenotype. Society of Basic Urologic Research Annual meeting, New Orleans, LA, November 7-10, 2019

6. Rice MA, Kumar V, Tailor D, Garcia Marquez F, Bermudez A, Inde ZR, Kanchustambham V, Ghoochani A, Nollet R, Pandrala M, Resendez A, Aslan M, Agarwal A, Buckup M, Liu S, Hsu E, Going

GC, Peehl D, Dixon SJ, Zare RN, Brooks JD, Pitteri SJ, Malhotra SV, **Stoyanova T.** Methoxychalcone derivative as a potent inhibitor of aggressive prostate cancer through glycolytic targeting. Society of Basic Urologic Research Annual meeting, New Orleans, LA, November 7-10, 2019

7. Ghoochani A, Garcia Marques F, Bermudez A, Aslan M, Rice MA, Hsu E, Pitteri SJ, Corey E, Brooks JD, **Stoyanova T.** Ferroptosis induction as a novel therapeutic approach for advanced prostate cancer. Society of Basic Urologic Research Annual meeting, New Orleans, LA, November 7-10, 2019

8. Rice MA, Kumar V, Tailor D, Garcia Marquez F, Bermudez A, Inde ZR, Kanchustambham V, Ghoochani A, Nollet R, Pandrala M, Resendez A, Aslan M, Agarwal A, Buckup M, Liu S, Hsu E, Going GC, Peehl D, Dixon SJ, Zare RN, Brooks JD, Pitteri SJ, Malhotra SV, **Stoyanova T.** Methoxychalcone derivative as a potent inhibitor of aggressive prostate cancer through glycolytic targeting. Radiology Joint Retreat, Santa Cruz, CA. October 29 –30, 2019
***Oral Presentation Winner***

9. Liu S, Hsu E, Rice MA, Aslan M, Ghoochani A, Brooks JD, Massie C, Gnanapragasam VJ, **Stoyanova T.** Discovery of blood-based biomarkers for clinically significant early-stage prostate cancer through high-multiplex immunoassays. Radiology Joint Retreat, Santa Cruz, CA. October 29 –30, 2019
***Oral Presentation Winner***

10. Aslan M, Hsu E, Ghoochani A, Rice MA, Liu S, West R, **Stoyanova T**. Elucidating the Role of Trop2 in Breast Cancer. Radiology Joint Retreat, Santa Cruz, CA. October 29 –30, 2019

11. Ghoochani A, Garcia Marques F, Bermudez A, Aslan M, Rice MA, Hsu E, Pitteri SJ, Corey E, Brooks JD, **Stoyanova T.** Ferroptosis induction as a novel therapeutic approach for advanced prostate cancer. Radiology Joint Retreat, Santa Cruz, CA. October 29 –30, 2019

12. Hsu E, Rice MA, Bermudez A, Garcia-Marques F, Aslan M, Ghoochani A, Aslan M, Liu S, Ghoochani A, Zhang C, Chen Y, Zlitni A, Kumar S, Nolley R, Habte F, Shen M, Koul K, Peehl D, Zoubeidi A, Gambhir SS, Kunder CA, Pitteri SJ, Brooks J, **Stoyanova T**. Trop2 as a Driver and Therapeutic Target for Metastatic Prostate Cancer with Neuroendocrine Phenotype. Prostate Cancer Foundation 26th Annual Scientific Retreat. October 24-26, 2019

13. Hsu E, Rice MA, Bermudez A, Garcia-Marques F, Aslan M, Ghoochani A, Aslan M, Liu S, Ghoochani A, Zhang C, Chen Y, Zlitni A, Kumar S, Nolley R, Habte F, Shen M, Koul K, Peehl D, Zoubeidi A, Gambhir SS, Kunder CA, Pitteri SJ, Brooks J, **Stoyanova T**. Trop2 as a new biomarker and driver of aggressive prostate cancer. 2019 Early Detection of Cancer Conference. Stanford, CA, September 24-26, 2019
***Oral Presentation Winner***

14. Liu S, Hsu E, Rice MA, Aslan M, Ghoochani A, Brooks JD, Massie C, Gnanapragasam VJ, **Stoyanova T.** Discovery of blood-based biomarkers for clinically significant early-stage prostate cancer through high-multiplex immunoassays. 2019 Early Detection of Cancer Conference. Stanford, CA, September 24-26, 2019

15. Rice MA, Hsu E, Aslan M, Ghoochani A, Nolley R, Buckup M, Su A, Liu S, Peehl D, Corey E, Brooks JD, **Stoyanova T.** The Role of Notch1 in Early Stratification of Aggressive Prostate Cancer. 2019 Early Detection of Cancer Conference. Stanford, CA, September 24-26, 2019

16. Ghoochani A, Garcia Marques F, Bermudez A, Aslan M, Rice MA, Hsu E, Pitteri SJ, Corey E, Brooks JD, **Stoyanova T.** Exploring ferroptosis regulators as biomarkers to predict and monitor therapeutic response to ferroptosis inducers. 2019 Early Detection of Cancer Conference. Stanford, CA, September 24-26, 2019

17. Aslan M, Hsu E, Ghoochani A, Rice MA, Liu S, West R, **Stoyanova T**. Elucidating the Role of Trop2 in Breast Cancer. 2019 Early Detection of Cancer Conference. Stanford, CA, September 24-26, 2019

18. Birk AM, Going CC, Tailor D, Kumar V, Bermudez A, Garcia-Marques FJ, Pandrala M, Rice MA, **Stoyanova T**, Malhotra S and Pitteri SJ. ASMS Conference on Mass Spectrometry and Allied Topics, Atlanta, GA June 2-6, 2019

19. Rice M, Kumar V, Taylor D, Aslan M, Garcia-Marques F, Bermudez A, Nolley R, Pandrala M, Ghoochani A, Buckup M, Su A, Going C, Peehl D, Brooks J, Pitteri S, Malhotra S, **Stoyanova T.** Novel methoxychalcone inhibits prostate cancer growth and metastasis, and synergizes with anti-androgen therapy. Stanford Drug Discovery Symposium (SDDS), Conference Center at the LI Ka Shing Center, Stanford University, California. April 22-23, 2019

20. Hsu E, Rice MA, Bermudez A, Garcia-Marques F, Aslan M, Ghoochani A, Zhang C, Chen Y, Zlitni A, Habte F, Kumar S, Nolley R, Peehl D, Zoubeidi A, Gambhir SS, Kunder CA, Pitteri SJ, Brooks J, **Stoyanova T**. Trop2 is a novel driver of metastatic castration resistant prostate cancer with neuroendocrine phenotype. Society of Basic Urologic Research Annual meeting, Rancho Mirage, CA, November 2018

21. Rice MA, Kumar V, Tailor D, Aslan M, Garcia Marques FJ, Bermudez A, Su A, Ghoochani A, Going CC, Pitteri SJ, Malhotra SV, **Stoyanova T**. Novel Methoxychalcone Inhibits Prostate Cancer Growth and Synergizes with Anti-androgen Therapy. Society of Basic Urologic Research Annual meeting, Rancho Mirage, CA, November 2018
***Travel Award and Oral Presentation Winner***

22. Hsu E, Rice MA, Bermudez A, Garcia-Marques F, Aslan M, Ghoochani A, Zhang C, Chen Y, Zlitni A, Habte F, Kumar S, Nolley R, Peehl D, Zoubeidi A, Gambhir SS, Kunder CA, Pitteri SJ, Brooks J, **Stoyanova T**. Defining new biomarkers and drivers of aggressive prostate cancer. Early Detection of Cancer Conference, Portland OR, October 2-4, 2018

23. Rice MA, Hsu E, Aslan M, Su A, Ghoochani A, Peehl D, Brooks J, **Stoyanova T**. The role of Notch1 in early stratification of aggressive prostate cancer. Early Detection of Cancer Conference, Portland OR, October 2-4, 2018

24. Xie J, Rice MA, Cheng Y, Song G, Kunder C, Brooks JD, **Stoyanova T**, Rao J. Methionine Aminopeptidase II (MetAP2) activated in situ self-assembly of small-molecule probes for imaging prostate cancer. WMIC, Seattle, WA, September 2018.
***Selected for oral presentation***

25. Rice MA, Hsu E, Nolley R, Bermudez A, Huang J, Peehl D, Kunder C, Pitteri S, Brooks JD, **Stoyanova T**. Defining new drivers of castration-resistant prostate cancer. AACR Prostate Meeting, Orlando, FL, December 2017

26. Xie J, Rice MA, Cheng Y, Song G, Kunder C, Brooks JD, **Stoyanova T**, Rao J. Methionine Aminopeptidase II (MetAP2) activated in situ self-assembly of small-molecule probes for imaging

prostate cancer. AACR Prostate Cancer Meeting, Orlando, Fl., December 2017

27. Rice MA, Hsu E, Aslan M, **Stoyanova T**. Notch1 as biomarker and therapeutic target for aggressive prostate cancer. Stanford University Radiology Retreat, Asilomar, CA. September 2017

28. Ghoochani A, Hsu E, **Stoyanova T**. Defining the molecular mechanism underlying Trop2 function in in prostate cancer. Stanford Radiology Retreat, Asilomar, CA, September 2017
29. Huang R, Ghoochani A, Hsu E, Kunder C, Brooks J, **Stoyanova T**. Development of New Diagnostic and Prognostic Tools for Prostate Cancer Early Detection. Canary CREST Poster Symposium, Stanford University, CA, August 2018

30. Hsu E, Rice MA, Nolley R, Huang J, Bermudez A, Pitteri SJ, Peehl DM, Brooks JD, **Stoyanova T**. Trop2 as a driver of aggressive prostate cancer. Stanford Bio-X IIP Symposium, Stanford University, CA, August 24, 2017

31. Su A, Hsu E, Rice MA, Buckup M, Nolley R, Brooks J, Peehl D, **Stoyanova T**. The role of GCNT1 in prostate cancer development. 2017 Bio-X USRP Poster Symposium, Stanford University, CA, August 2017

32. Buckup M, Rice MA, Su A, Aslan M, Hsu E, Pitteri S, **Stoyanova T**. Elucidating the role of legumain in prostate cancer. Verily Canary Center Summer Internship Poster Presentation, Stanford University, August 2017
***Best Poster Award Winner***

33. Rice MA, Hsu E, **Stoyanova T**. Role of Notch1 in early stratification of aggressive prostate cancer. Canary Foundation Early Cancer Detection Symposium, May 2017
***Best Poster Award Winner***

34. Hsu EC, Rice M, Nolley R, Huang J, Peehl DM Brooks JD, **Stoyanova T**. Defining new biomarkers for prostate cancer. Canary Foundation Early Detection Symposium, Stanford University, CA, May 3, 2017

35. Rice MA, Hsu E, Peehl D. **Stoyanova T**. Therapeutic inhibition of Notch1 in metastatic prostate cancer. AACR, Washington D.C. April 2017

36. Hsu E, Rice MA, Pienta KJ, Huang J, Witte ON, **Stoyanova T**. Cell surface receptor Trop2 as biomarker for prostate cancer", Stanford Bio-X IIP Symposium, Stanford University, CA, August 24, 2016

37. Rice MA, Hsu E, Peehl D, **Stoyanova T**. Therapeutic Inhibition of Notch1 in metastatic prostate cancer. Bio-X Symposium, Stanford University. 2016

38. Wang J, Rice MA, Hsu E, Gong X, Thompson K, Brooks J, **Stoyanova T**. Bioinformatics screening of cell surface receptors to identify new stem cell and prostate cancer markers. Canary Summer Internship Poster Presentation, Stanford University. 2016

39. Thompson K, Rice MA, Tanimoto C, Bermudez A, Hembree A, Hsu E, Wang J, Pitteri S, **Stoyanova T.** Utilizing glycoprotomic analysis to identify novel therapeutic targets for prostate cancer. Canary Summer Internship Poster Presentation, Stanford University. 2016

40. **Stoyanova T**, Faltermeier C, Smith B, Goldstein AS, Zhang K, Lee JK, Drake JM, Nowroozizadeh B, Orellana SY, Blum S, Chen D, Pienta KJ, Huang J and Owen N. Witte. Proteolytically cleaved receptors as therapeutic targets for advanced prostate cancer. American Urological Association's 2015 Annual Meeting, May 15-19, 2015

41. **Stoyanova T**, Faltermeier C, Smith B, Goldstein AS, Zhang K, Lee JK, Drake JM, Nowroozizadeh B, Orellana SY, Blum S, Chen D, Pienta KJ, Huang J and Owen N. Witte. Notch1 as a key mediator in promoting advanced castration-resistant prostate cancer. American Association for Cancer Research Annual Meeting, April 18-22, 2015

42. **Stoyanova T**, Faltermeier C, Smith, Goldstein AS, Zhang, Drake JM, Lee JK, Orellana S, Chen, Blum S, Pienta KJ, Huang J and Witte ON. Notch1 as a key mediator in promoting advanced castration-resistant prostate cancer. Prostate Cancer Foundation 21th Annual Scientific Retreat. October 21-25, 2014

43. **Stoyanova T**, Cooper AR, Drake JM, Liu X, Armstrong AJ, Zhang H, Kohn DB, Huang J, Witte ON and Goldstein AS. Prostate cancer originating in basal cells progresses to adenocarcinoma propagated by luminal-like tumor-propagating cells. Prostate Cancer Foundation. Prostate Cancer Foundation 20th Annual Scientific Retreat. October 24-26, 2013

44. **Stoyanova T**, Cooper AR, Drake JM, Liu X, Armstrong AJ, Zhang H, Kohn DB, Huang J, Witte ON and Goldstein AS. Prostate cancer originating in basal cells progresses to adenocarcinoma propagated by luminal-like tumor-propagating cells. Gordon Research Conference: Hormone-Dependent Cancers. July 28 - August 2, 2013

45. **Stoyanova T**, Goldstein A, Cai H, Drake JM, Huang J, Zhang H and Witte ON. Regulated proteolysis of Trop2 drives mouse prostate tumorigenesis and cell self-renewal via beta-catenin signaling. International Society of Stem Cell Research. 10th Annual Meeting. Japan. June 13-16, 2012

46. **Stoyanova T**, Goldstein A, Cai H, Drake JM, Huang J, Zhang H and Witte ON. Regulated proteolysis of Trop2 drives epithelial tumorigenesis and stem cell self-renewal via beta-catenin signaling. Tri-institutional stem cell retreat. April 11-13, 2012

47. **Stoyanova T**, Goldstein A, Cai H, Drake JM, Huang J, Zhang H and Witte ON. Trop2 regulates prostate tumorigenesis and stem cell self-renewal. American Association for Cancer Research. Advances in Prostate Cancer Research. February 6-9, 2012

48. **Stoyanova T**, Goldstein A, Cai H, Drake J and Witte ON. Trop2 regulates stem/progenitor function and transformation in the prostate. Prostate Cancer Foundation. Prostate Cancer Foundation 18th Annual Scientific Retreat. Sept 22-24, 2011

49. **Stoyanova T**, Goldstein A, Cai H and Witte ON. Trop2 regulates prostate stem cell self-renewal and transformation. California Institute for Regenerative Medicine. 2011 CIRM Grantee Meeting. September 14-16, 2011

50. **Stoyanova T**, Goldstein A, Cai H and Witte ON. Trop2 regulates stem/progenitor function and transformation. Wnt 2011. June 29-July 3, 2011

51. **Stoyanova T,** Goldstein A and Witte ON. Trop2 regulates prostate stem cell self-renewal and

transformation. American Association for Cancer Research. Stem Cells, Development, and Cancer. March 3-6, 2011

52. **Stoyanova T,** Goldstein A and Witte ON. Trop2 regulates progenitor function and transformation through cell-intrinsic and extrinsic cleavage products. Eli and Edythe Broad Center of Regenerative Medicine & Stem Cell Research, and the Jonsson Comprehensive Cancer Center, University of California, Los Angeles. 7th Annual Stem Cell Conference on Stem Cells: Basic Biology to Translational Medicine. February 18, 2011

53. **Stoyanova T,** Goldstein A and Witte ON. Trop2 regulates progenitor function and transformation through cell-intrinsic and extrinsic cleavage products. University of California, Los Angeles. Stem Cell Club Meeting. January 18th, 2011

54. **Stoyanova T,** Goldstein A and Witte ON. The role of Trop2 in prostate stem/progenitor cells. Broad Stem Cell Retreat. April 14-16, 2010

55. **Stoyanova T**, Roy N, Kopanja D, Bagchi S and Raychaudhuri P. DDB2 decides cell fate following DNA damage. American Association for Cancer Research. Mouse Models of Cancer. January 12-15, 2009

56. **Stoyanova T**, Yoon T, Kopanja D, Mokyr MB, Raychaudhuri P. Damaged DNA-Binding Protein 2 regulates DNA repair and apoptosis through p21Cip1/Waf1. Salk, Caltech, USC Meeting. DNA Replication and Genome Integrity meeting. July 18-22, 2008

57. **Stoyanova T**, Yoon T, Roy N, Kopanja D, Mokyr M B and Raychaudhuri P. The XP-E gene product DDB2 activates NER and apoptosis by regulating the level of p21Waf1/Cip1. Graduate and Professional Research Forum. April 18, 2008

58. **Stoyanova T**, Yoon T, Kopanja D, Mokyr M B and Raychaudhuri P. The XP-E gene product DDB2 activates NER by regulating the level of p21Waf1/Cip1. Graduate and Professional Research Forum. April 20, 2007

59. **Stoyanova T**, Yoon T, Kopanja D, Mokyr MB, Raychaudhuri P. Rapid termination of the p53-related checkpoint in UV-irradiated cells is required for efficient repair synthesis. Cold Spring Harbor Laboratories. The Cell Cycle meeting. May 17-21, 2006

## XII EDUCATIONAL ACTIVITIES AND TRAINEES

### Trainee Advising

**Postdoctoral Fellows, primary mentor:**

En-Chi Hsu, PhD (March 2016-present)
Shigin Liu, MD-PhD (March 2019-present)
Manoj Kumar, PhD (September 2020-present)

Ali Ghoochani, PhD (June 2017-February 2020)
Department of Defense, Prostate Cancer Research Program, Early Investigator Research Award Recipient

Meghan Rice, PhD (May 2016-March 2019)
Department of Defense, Prostate Cancer Research Program, Early Investigator Research Award Recipient
Best Poster Award Recipient at the 2017 Canary Foundation Early Detection Symposium
Helena Anna Henzl-Gabor Young Women in Science Postdoctoral Travel Grant Award Recipient
Society of Basic Urologic Research Annual Meeting Travel Award and Oral Presentation Winner
Current position: Scientist at Revolution Medicines

**Research Scientists, primary mentor:**

Merve Aslan (May 2017-present)

**Undergraduate Students, primary mentor:**

Jordan Lee (December 2019-current), Stanford University
Current position: Undergraduate Student at Stanford University

Michelle Shen (June 2019-current), Stanford University
Undergraduate Advising and Research Major Grant Recipient (2020)
Current position: Undergraduate Student at Stanford University

Arvind Muruganantham (June 2020-current), Canary CREST Summer Student
Current position: Undergraduate Student at Baylor University

Kashyap Koul (June 2019-August 2019), Summer Student
Current position: Undergraduate Student at Louisiana State University

Arushi Agarwal (June 2019-September, 2019), Summer Student
Caltech's Summer Undergraduate Research Fellowship
Current position: Undergraduate Student at California Institute of Technology

Mark Buckup (June 2017-August 2019)
Honors Undergraduate Student, Stoyanova Lab, Stanford University
Verily Young Scientist Award Recipient
Current position: Research Assistant, Dr. Miriam Merad's lab, Icahn School of Medicine at Mount Sinai

Austin Su (June 2017-June 2019)
Honors Undergraduate Student, Stanford University
Stanford Bio-X Undergraduate Research Fellowship
Undergraduate Advising Research (UAR) Award
Current position: Medical Student, Columbia University

Rachel Huang (June 2018-August 2018)
Current position: Undergraduate Student at Johns Hopkins University

Kelsey Thompson (June 2016-August 2016)
Current position: Doctor of Physical Therapy Program at Washington University

**High School Students, primary mentor**

Jenica Wang (June 2016-August 2016)
Current position: Undergraduate Student at Johns Hopkins University

**Peer Mentorship**
Dr. Louise Kiru, Instructor, Department of Radiology

**Teaching and Courses**

1. Course Instructor–CBIO 280: Cancer Biology Journal Club (2020)
2. Course Instructor– CBIO 245 Lecture Seminar Series Science Talks (2020)