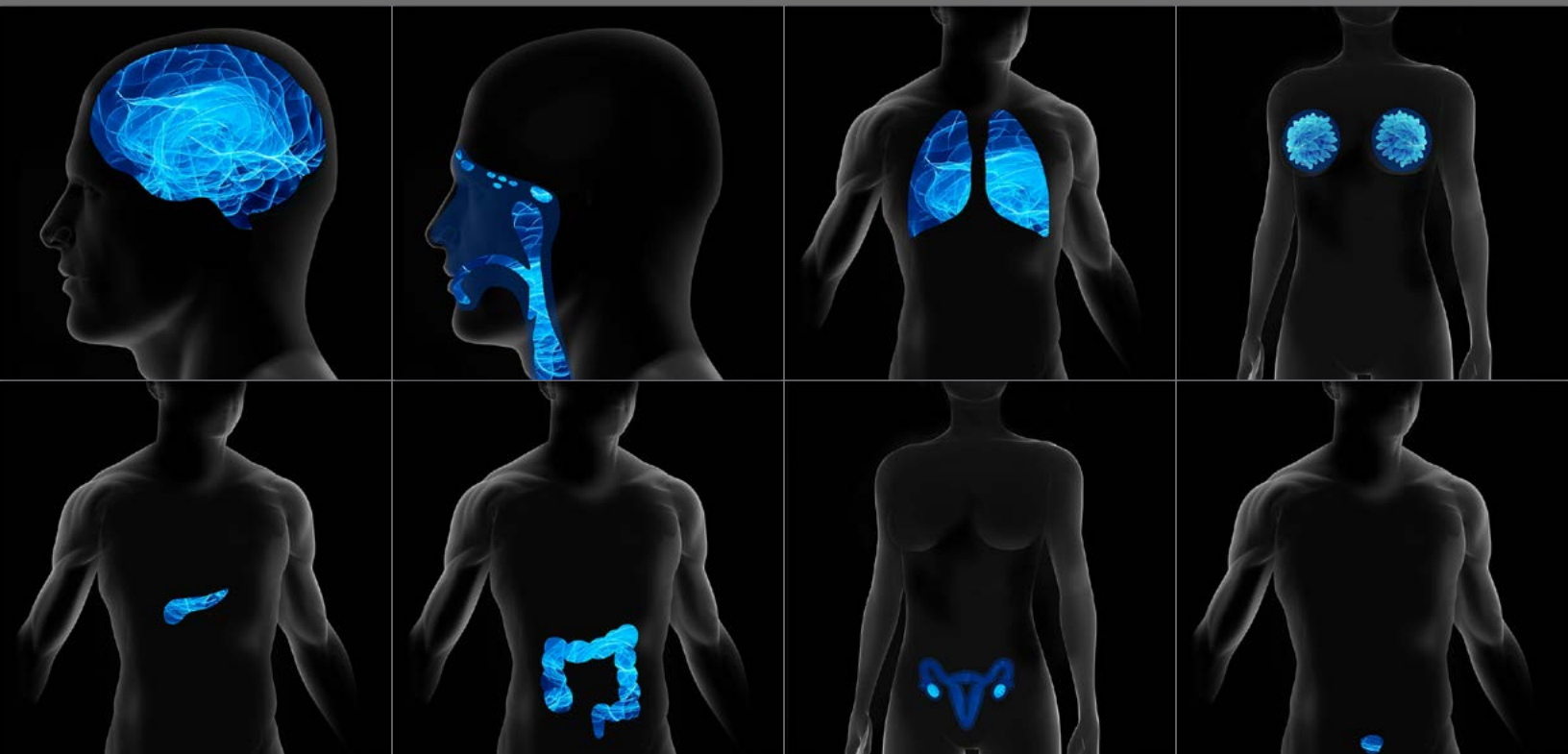


SOLID TUMOR TRANSLATIONAL RESEARCH

Inventing The Future:
The People, The Programs, The Promise



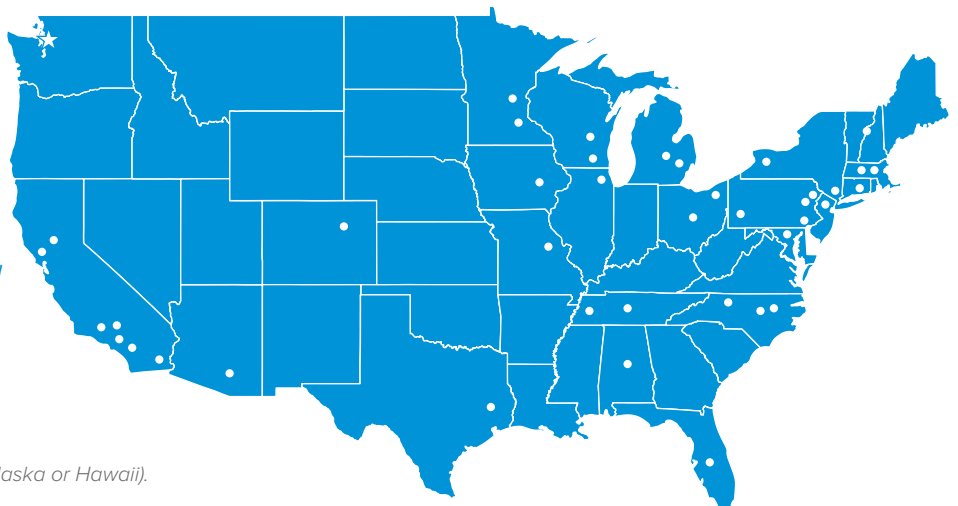


The Vessel outside of Fred Hutchinson Cancer Research Center. Photo: Bo Jungmayer/Fred Hutch.

Table of contents

Foreword	02
Fred Hutchinson/University of Washington Cancer Consortium	03
The Age of Personalized Medicine: Our Contributions	04
Precision Oncology Pipeline.....	04
Bioutil Development	05
Pioneering Approaches to Eliminate Cancer: Our Novel Research	06
Seed Funding for Peer-reviewed Grants and Funding Opportunities	06
Select NIH Awards	08
Select Foundation Awards	10
Recruiting and Retaining the World’s Top Researchers: Our Program Highlights.....	12
Solid Tumor Translational Research Faculty	12
Brain 14, Breast 18, Colorectal 22, Head and Neck 26, Lung 30, Ovary 34, Pancreas 38, Prostate 42	
Using Analytics to Inform Strategic Plans: Our Metrics.....	46
Global Presence	46
Select Publications in High Impact Journals.....	47
Select Solid Tumor Clinical Trials.....	50
Priorities for the Future	52

Together, Fred Hutchinson
Cancer Research Center,
UW Medicine, Seattle Cancer
Care Alliance and Seattle
Children’s form the Pacific
Northwest’s only NCI-designated
Comprehensive Cancer Center.



Map of the United States marking all NCI-designated Comprehensive Cancer Centers (there are none in Alaska or Hawaii).

STTR's Revolutionary Effort



Eric C. Holland,
STTR Director

Fred Hutchinson Cancer Research Center in Seattle has been long known as a stronghold for research and clinical care of liquid tumors via bone marrow transplants. Solid Tumor Translational Research (STTR) leadership was recruited from New York less than one year ago to enhance translational research in solid tumors. We originally chose eight organ sites to focus our efforts: including brain, breast, colon, head and neck, lung, ovary, pancreas, and prostate. We identified over 400 investigators and clinicians who focus on tumors derived from these organ sites across University of Washington, UW Medicine, Seattle Cancer Care Alliance (SCCA), and Fred Hutch. We have begun to create interactive communities of investigators centered on diseases from these organ sites. Moving forward, our goal is to enhance collaborative projects, publications and grants leading to clinical impact that will change the standard of care for these solid tumors. From this extensive list of dedicated people we highlight a few examples of translational research projects, many led by physician-scientists partnering with clinicians that take them into clinical trials for our patients.

Sincerely,

A handwritten signature in black ink that reads "EHolland". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Eric C. Holland, STTR Director



Desert Horse-Grant,
Director, Strategy &
Operations

We cannot thank the community enough for its warm welcome, guidance and enthusiasm emanating from the coordination of efforts. STTR is a transformative movement that is creating a strong sense of community among Seattle's cancer investigators, with the ultimate goal of accelerating scientific discovery and translating it into cancer cures for patients both regionally and globally. With the support from our philanthropic partners, we are poised to make major research advances that will significantly improve patient quality of life and survival. Our team includes experts in mathematical modeling, computer simulation, visualization, bioengineering, big data mining, cancer biology, precision oncology, population science and the best clinicians in the field. The SCCA along with UW Medicine, has demonstrated the highest five-year survival rates in the nation for several cancer types; moreover, it offers a litany of patient support groups and services. Philanthropy plays a large role in supporting innovative and transformative research, leading to better quality of life and survival for our patients. We genuinely thank each foundation and donor for their contributions to our revolutionary research efforts and look forward to future engagement.

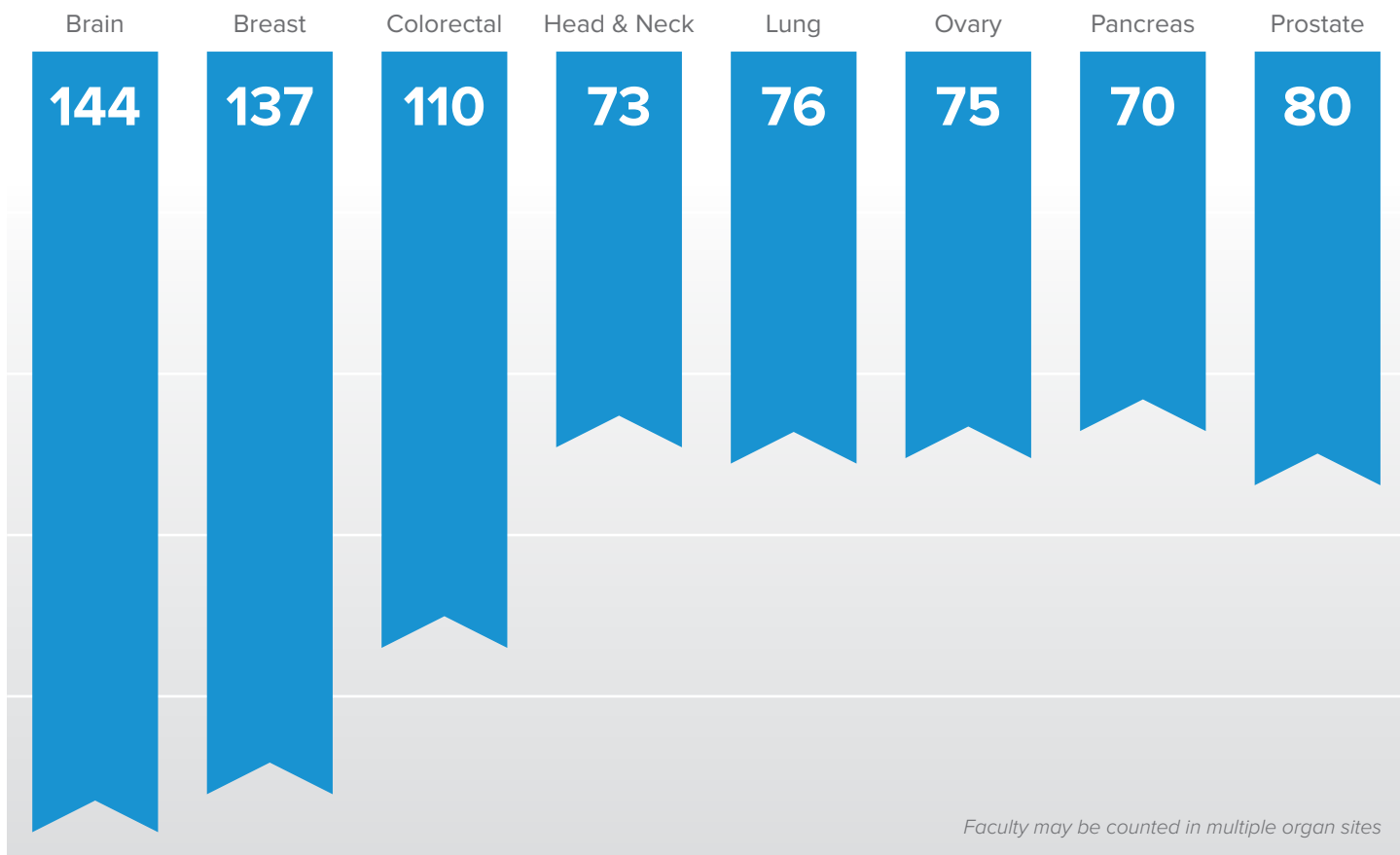
Regards,

A handwritten signature in black ink that reads "Desert Horse Grant". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Desert Horse-Grant, Director, Strategy & Operations

STTR contact: 206.667.6661

Total STTR Faculty by Organ Site



The Fred Hutchinson/University of Washington Cancer Consortium brings together more than 450 investigators with cancer expertise in clinical, basic and public health sciences. As the only NCI-designated comprehensive cancer center in a five-state region, the goal of the Cancer Consortium is the elimination of cancer through more effective prevention, diagnostics and treatment. A major area of emphasis during the next five-year period is to further develop solid tumor translational research to position the Cancer Consortium as a leader in this field.

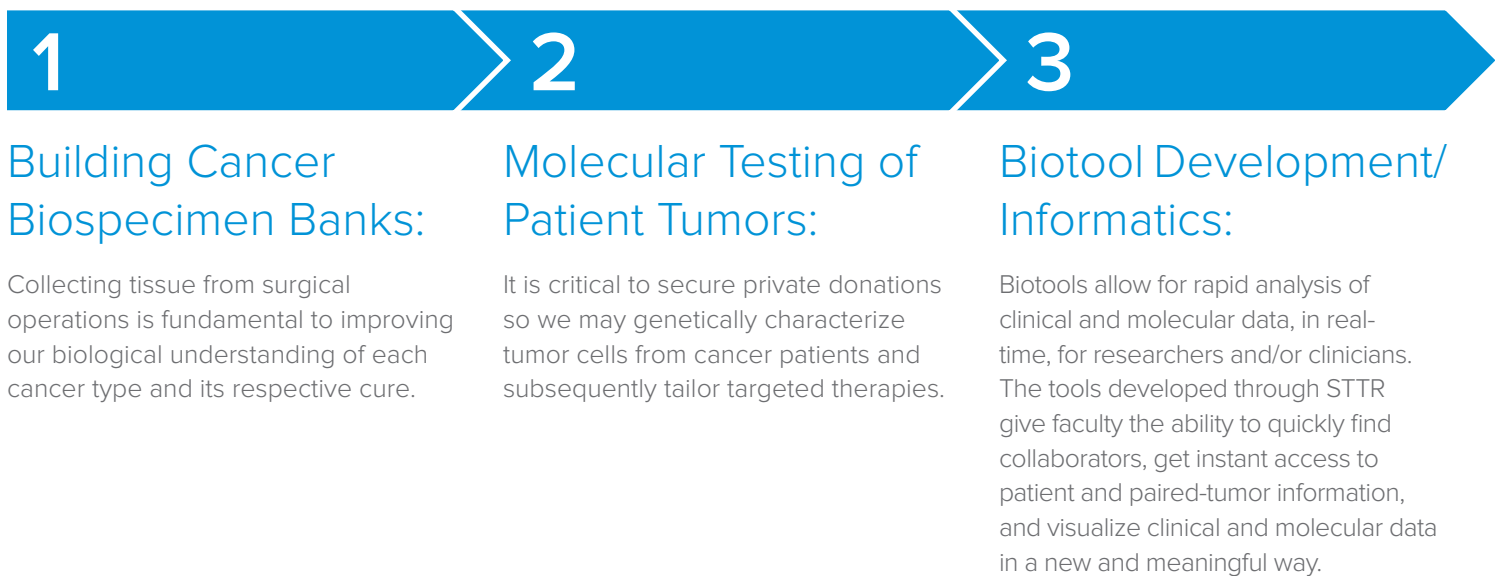
STTR is the effort created to address the Cancer Consortium's renewed emphasis on solid tumors. STTR leverages a multidisciplinary group of physicians and scientists from Fred Hutchinson Cancer Research Center, UW Medicine, Seattle Cancer Care Alliance, and Seattle Children's to accomplish its overall goal of translating cutting-edge research into better clinical care for patients, improved quality of life and lengthened survival.

To accomplish its goal, STTR is focusing on four major areas: 1) the development of tailored therapies through precision oncology; 2) the funding of peer-reviewed grants to test pioneering approaches to eliminate cancer; 3) priming our research environment with the most robust faculty research teams across our cancer organ sites (brain, breast, colorectal, head and neck, lung, ovary, pancreas, and prostate); and 4) the gathering of metrics that will inform our strategic plans.

The Age of Personalized Medicine: Our Contributions

Our highest priority is to create research and infrastructure that provides a foundation for personalized precision diagnostics and tailored therapies for cancer patients. ‘Precision oncology’ is a deceptively simple idea: identifying genes that drive a particular cancer to facilitate the design of precise targeted therapies for each patient—ultimately reducing tumor burden or eradicating disease altogether. This requires a precision oncology pipeline to identify and collect tumors, molecularly test those tumors and screen for targets against the disease.

The Precision Oncology Pipeline:



Bioutil Development



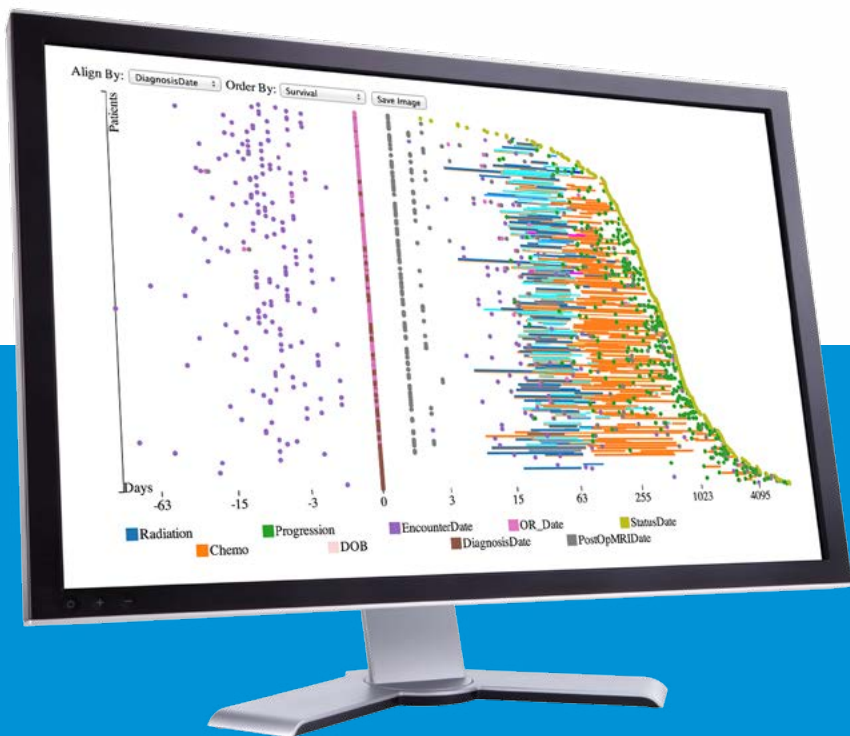
HIDRA

A patient-centric database tool unifying UW Medicine, Seattle Cancer Care Alliance, and Fred Hutch that integrates data, enabling searches across cancer patients, specimens, studies and molecular assays for broad, rapid research into molecular diagnostics and precision oncology. HIDRA implements natural language processing, eliminates redundancy, and takes advantage of electronic feeds to speed progress.



ATHENA

An Internet-based tool to rapidly identify collaborators that searches over 400 STTR faculty and over 600 Seattle-based experts in the “omics” fields of experimental design, analysis and data interpretation.



ONCOSCAPE

A tool developed by STTR that enables interactive in-browser data analysis and visualization of clinical and molecular data within a secure portal. This tool will help experts maximize a patient’s treatment benefit to lengthen survival.

Uncovering Trends in Therapeutic Response and Genetics to Increase Survival

STTR investigators have created Oncoscope, a mechanism to visualize the clinical history of patients or populations through an interactive timeline. Oncoscope facilitates real-time discovery of treatment option, outcome patterns and hypothesis testing. Clustering patients according to various, shared clinical features can further permit statistical testing of treatment efficacy and contribute to increased survival based on more complete medical history.

Pioneering Approaches to Eliminate Cancer: Our Novel Research

New funding at critical stages of a research program is key to developing new ideas that allow researchers to explore high-risk, high-reward ideas on a small scale.

Seed Funding for Peer-Reviewed Grants: Nine of the following research projects have been funded by STTR ranging from \$45K-\$100K, while the rest are seeking opportunities for external funding.

Translational Research Proposals

Brain

Deconstructing Glioma Heterogeneity through Single Cell Genomic Analysis* **FUNDED**

Investigators: Drs. Robert Rostomily, Patrick Paddison, Jay Shendure and Andrei Mikheev

Genomic Profiling of Aggressive Meningiomas with Defined Phospho-Proteomes and Correlation with Long-Term Clinical Outcomes*

Investigators: Drs. Manuel Ferreira, James Olson, Jing Zhang, and Michael Dorschner

Metabolic Diversity Among Glioblastomas*

Investigators: Drs. David Hockenbery and Patrick Paddison

**Indicates collaborative grants representing faculty across 2 or more institutions*

Breast

In Vivo Gene Engineering of Hematopoietic Stem Cells for Breast Cancer Therapy*

Investigators: Drs. Andre Lieber and Hans-Peter Kiem

Innovations in Tissue Sampling and Imaging of Bone Dominant Metastatic Breast Cancer* **FUNDED**

Investigators: Drs. Hannah Linden, Peggy Porter, Stephen Schmechel, Jean Lee, Paul Kinahan, Kenneth Krohn, Jennifer Specht, and Evan Yu

MRI and Tissue Biomarkers of Ductal Carcinoma in situ Risk*

Investigators: Drs. Habibollah Rahbar and Mara Rendi, Mary Redman, Savannah Partridge, Vijayakrishna Gadi, and Constance Lehman

Relationship of Molecular Alterations in Breast Cancer Cells and Exposure to Protracted, Low Dose Ionizing Radiation*

Investigators: Drs. Peggy Porter, Scott Davis, and Martin McIntosh, Ken Kopecky

Colorectal

Comparison of UW-OncoPlex to Standard Screening Methods for Lynch Syndrome in Colorectal Cancer*

Investigators: Drs. Colin Pritchard and William Grady, Melissa Upton and Stacey Shiovitz

Discovery and Verification of Novel Biomarkers of Colorectal Cancer Recurrence* **FUNDED**

Investigators: Drs. Christopher Li and Paul Lampe, William Grady, Margaret Pepe, and Maria Westerhoff

Microbial Signatures Associated with the Molecular Pathogenesis of Colon Cancer*

Investigators: Drs. Meredith Hullar and William Grady

Mitochondrial Dysfunction: A Novel Transformation Mechanism and Target in Colorectal Cancers with Fbw7 Mutations *

Investigators: Drs. Bruce Clurman and David Hockenbery

Select NIH Awards

The National Institutes of Health (NIH) budget has not been increased in a number of years, yet our faculty continue to successfully secure competitively awarded research grants. STTR faculty have a multi-million dollar portfolio each year through highly competitive NIH funding mechanisms. Below are select programmatic and individual grants per organ site, [totaling over \\$19 million new dollars in 2013](#).

Brain

P01 CA042045: Molecular Imaging of Cancer and Its Response to Therapy

Dr. Kenneth Krohn

\$1,292,896

U54 CA163167: Role of the Perivascular Microenvironment in Primary and Metastatic Brain Tumors

Dr. Eric Holland

\$949,075

Breast

P50 CA138293: Seattle Cancer Consortium Breast SPORE

Dr. Peggy Porter

\$2,031,363

P50 CA148143: Understanding and Preventing Breast Cancer Disparities in Latinas

Dr. Ingelberta (Betí) Thompson

\$1,846,612

Colorectal

R21 CA164548: Mitochondria Proteome of Ulcerative Colitis Associated Dysplasia

Dr. Ru Chen

\$160,835

R01 CA168338: A Cohort Study of Sessile Serrated Polyps and Subsequent Colorectal Neoplasia

Dr. Polly Newcomb

\$668,122

Head and Neck

U01 CA176303: An Integrated Computational and Functional Genomics Discovery Engine for Preclinically Validated Cancer Drug Targets

Dr. Christopher Kemp

\$1,088,820

R01 CA068328: Lymph Node Alterations in Cancer

Dr. Alanna Ruddell

\$296,703

Lung

U48 DP001911: Health Promotion Research Center

Drs. David Au and Steven Bacchus Zeliadt

\$1,833,421

R01 CA170386: Novel Pathogen Associated Cancers (PQ12)

Dr. Margaret Madeleine

\$736,412

Ovary

P50 CA083636: Pacific Ovarian Cancer Research Consortium

Dr. Nicole Urban

\$2,150,499

R01 CA144057: Evaluation of Vectors Based on Group B Adenoviruses

Dr. Andre Lieber

\$855,992

Pancreas

R01 CA033084: Mechanisms of Murine Tumor Eradication by Immunotherapy

Dr. Philip Greenberg

\$552,495

R01 CA161112: Overcoming Stromal Barriers to Therapeutics in Pancreas Cancer

Dr. Sunil Hingorani

\$479,510

Prostate

P50 CA097186: The Pacific Northwest Prostate Cancer SPORE

Dr. Pete Nelson

\$2,150,500

U01 CA157224: Modeling Prostate Cancer Control: Prevention, Screening, Treatment, Follow-up Care

Dr. Ruth Etzioni

\$1,023,733

R01 AG037603A: Dose-Response Relationships Between Circulating and Intraprostatic Androgens in Men

Dr. Stephanie Page

\$971,800

A full list of grants can be found at <http://report.nih.gov/index.aspx>.

NIH awardees as highlighted on the previous page.



Dr. Kenneth Krohn



Dr. Eric Holland



Dr. Peggy Porter



Dr. Ingelberta (Beti) Thompson



Dr. Ru Chen



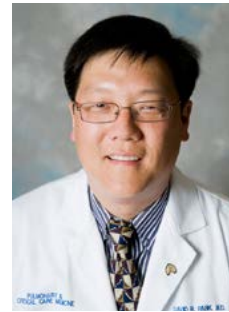
Dr. Polly Newcomb



Dr. Christopher Kemp



Dr. Alanna Ruddell



Dr. David Au



Dr. Steven Bacchus Zeliadt



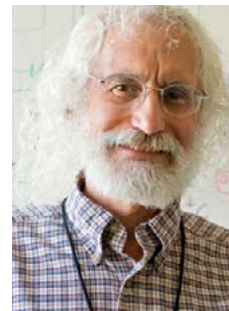
Dr. Margaret Madeleine



Dr. Nicole Urban



Dr. Andre Lieber



Dr. Philip Greenberg



Dr. Sunil Hingorani



Dr. Peter Nelson



Dr. Ruth Etzioni



Dr. Stephanie Page

Select Foundation Awards

Brain

American Brain Tumor Association

Knockdown of Ape1 Activity in Pediatric Brain Tumor Cells Using Nanoparticles Enhances Their Sensitivity to Radiation Therapy

Dr. Rachel Kievit

Breast

Susan G. Komen for the Cure

Susan G. Komen for the Cure Research Program, Leadership Grant

Dr. Benjamin Anderson

GE Foundation

Automated Breast Ultrasound and Digital Breast Tomosynthesis Screening Compared to Full Field Digital Mammography in Women with Dense Breasts

Dr. Constance Lehman

Breast Cancer Research Foundation

Effect of Vitamin D and Weight Loss on Biomarkers of Breast Cancer Risk

Dr. Anne McTiernan

Colorectal

Burroughs Wellcome Fund

Novel Biomarkers for the Prevention and Treatment of Colon Cancer

Dr. William Grady

ASCO Conquer Cancer Foundation

Implementation of a Prospective Financial Impact Assessment Tool in Patients with Metastatic Colorectal Cancer

Dr. Veena Shankaran

ASCO Conquer Cancer Foundation

Young Investigators Award

Dr. Stacey Shiovitz

Head And Neck

American Cancer Society

Integrative Genomics Approach Therapeutic Target Selection in Oral Cancer Metastasis

Dr. Eduardo Mendez

American Cancer Society

Erythropoietin and Cancer: Insights from Archival Clinical Tumor Samples

Dr. Chris Miller

Lung

LIVESTRONG

Young Adult Study: LIVESTRONG Survivorship Study for Young Adults with Cancer

Drs. K. Scott Baker & Karen Syrjala

Ovary

V Foundation

Defining Genomic Scarring and Functional DNA Variants that Predict Response to PARP Inhibitors in a Clinical Trial for Recurrent Ovarian Cancer

Drs. Elizabeth Swisher & Toshiyasu Taniguchi

Marsha Rivkin Center for Ovarian Cancer Research

TOR Specimen Repository for Early Detection Research

Dr. Nicole Urban

Pancreas

Giles W. and Elise G. Mead Foundation

A New Platform for Translational Oncology in Pancreas Cancer

Dr. Sunil R. Hingorani

Focused Ultrasound Surgery Foundation

MR-Guided HIFU Enhanced Targeted Drug Delivery for Treatment of Pancreas Cancer: A Pre-Clinical Study

Dr. Joo Ha Hwang

Prostate

Prostate Cancer Foundation

Young Investigator Award

Dr. Hung-Ming Lam

Listwin Family Foundation

The Androgen Receptor as a Novel Driver and Therapeutic Target in Mantle Cell Lymphoma

Dr. Elahe Mostaghel

Prostate Cancer Foundation

Defining Therapeutic Approaches to Target AR Pathway Independent Prostate Cancer (APIPC)

Dr. Colin Pritchard



Dr. Douglas Wood during a surgical operation. Photo: Seattle Cancer Care Alliance

Our faculty are very grateful to foundations who fund scientific research through competitive award programs.

Accelerate Brain Cancer Cure
 Alex's Lemonade Stand Foundation
 American Brain Tumor Association/
 Emily Dorfman Foundation
 American Cancer Society
 American College of Radiology
 Imaging Network
 American College of Surgeons
 Avon Foundation
 Burroughs Wellcome Fund
 Canary Foundation
 CARIS Molecular Profiling Institute
 CRP-Santé (Luxembourg)
 Crohn's & Colitis Foundation of America
 Cures Within Reach
 Damon Runyon Cancer Research
 Foundation
 David Jones and Maryanne Tagney-
 Jones Fund

Fanconi Anemia Research Fund
 Focused Ultrasound Foundation
 Fogarty International Center FIC
 Gateway for Cancer Research
 GCRC Clinical Research Pilot &
 Feasibility Award
 GE-AUR Radiology Research
 Academic Fellowship
 Giles W. and Elise G. Mead Foundation
 Heath Foundation
 Lotte & John Hecht Memorial
 Foundation
 J. Orin Edson Foundation
 Jeffrey Rosenzweig Foundation for
 Pancreatic Cancer Research
 Korea Research Institute of Bioscience
 & Biotechnology
 Life Science Discovery Fund
 Listwin Family Foundation
 Livestrong Foundation

Lotte and John Hecht Memorial
 Foundation
 Lung Cancer Research Foundation
 Lustgarten Foundation
 Marsha Rivkin Center for Ovarian
 Cancer Research
 Matthias Lackas Foundation
 National Center for Complementary
 and Alternative Medicine
 National Comprehensive Cancer
 Network
 National Pancreas Foundation
 Pancreatic Cancer Action Network
 Prevent Cancer Foundation
 Prostate Cancer Foundation
 Safeway Foundation
 St. Baldrick's Foundation
 Susan G. Komen Foundation
 Swim Across America
 The Howard Hughes Medical Institute
 The Mary Kay Foundation
 The V Foundation for Cancer Research
 Wallace H. Coulter Foundation
 Washington Global Health Alliance
 Washington Research Foundation



Brain Cancer



Breast Cancer



Colorectal Cancer



Head & Neck Cancers



Lung Cancer



Ovarian Cancer



Pancreatic Cancer



Prostate Cancer

Recruiting and Retaining the World's Top Researchers: Our Program Highlights

Brilliant researchers are the cornerstone of our work and achievements in developing successful treatments. STTR must offer competitive start-up packages to draw the talent needed to advance our work and increase the hope of finding cures. Philanthropy is vital to both the recruitment and retention of leaders in the field as well as funding their research—especially the development of less invasive, more sensitive early diagnostic testing so that interventions can stop cancer before it starts.

STTR has identified over 400 faculty spanning eight initial organ sites. The following pages highlight our members and the work being done within those tumor sites.

To learn more about our programs and members, visit our expertise and research pages at www.STTRCancer.org.

STTR Faculty

M. Robyn Andersen, PhD, MPH
Benjamin Anderson, MD
Garnet Anderson, PhD
Jalal Andre, MD
Yoshimi Anzai, MD, MPH
Smith (Jim) Apisarnthanarax, MD
David Au, MD, MS
Anthony Michael Avellino, MD, MBA
Anthony Back, MD
Leah Backhus, MD, FACS
Christina Baik, MD, MPH
Geoffrey Baird, MD, PhD
K. Scott Baker, MD
Laura Mae Baldwin, MD, MPH
Nitin Baliga, PhD
William Barlow, PhD
Anirban Basu, PhD, MS
Carolyn Baylor, PhD
Norman Beauchamp, MD, MHS
Kathleen Bell, MD
William Bensinger, MD

Shirley Beresford, PhD, MSc, MA
Daniel Berg, MD
Slobodan Beronja, PhD
Parveen Bhatti, PhD
Amit Bhrany, MD
Jason Bielas, PhD
C. Anthony (Tony) Blau, MD
Jesse Bloom, PhD
Hamid Bolouri, PhD
Mark Bothwell, PhD
Denise Boudreau, PhD, MS
Stephen Bowen, PhD
Robert Bradley, PhD
William Bremner, MD, PhD
Teresa Brentnall, MD
David Breiger, PhD
James (Jim) Brinkley, MD, PhD
Samuel Robert Browd, MD, PhD
Peter Brzovic, PhD
Diana Buist, PhD, MPH
David Byrd, MD

Kristine Calhoun, MD
Christopher Carlson, PhD
Rachel Ceballos, PhD
Marc Chamberlain, MD
Krishnavel Chathadi, MD
Mac Cheever, MD
Chu Chen, PhD, NRCC, DABCC
Ru Chen, PhD
Guang-Shing Cheng, MD
Heather Cheng, MD, PhD
Monique Cherrier, PhD
Yong Chi, PhD
Elena Gabriela Chiorean, MD
Daniel Chiu, PhD
Laura Chow, MD
Alexei Chvetsov, PhD, DABR, MCCPM
Bruce Clurman, MD, PhD
Barbara Cochrane, PhD, RN, FAAN
Bonnie Cole, MD
Marc Coltrera, MD
Jonathan Cooper, PhD
Eva Corey, PhD
Colin Correnti, PhD
Andrew Coveler, MD
Courtney Crane, PhD
Ian Nicholas (Nick) Crispe, MBBS, PhD
Kristina Crothers, MD
Carlos Cuevas, MD
Bruce Dalkin, MD
Mark Derleth, MD
Anthony DeSantis, MD
Gail Deutsch, MD
Scott Diede, MD, PhD
Suzanne Dintzis, MD, PhD
Mary (Nora) Disis, MD
Jason Dominitz, MD, MHS
Michael Dorschner, PhD
Charles Drescher, MD
Larry Duckert, MD, PhD
Catherine Duggan, PhD
Tanya Eadie, PhD, CCC-SLP
Keith Eaton, MD, PhD
Robert Eisenman, PhD
Richard Ellenbogen, MD, FACS
William Ellis, MD
Joann Elmore, MD, MPH
Ralph Ermoian, MD
Ruth Etzioni, PhD
R. Alan Failor, MD
Christine Fang, MD

Min Fang, MD, PhD
Jesse Fann, MD, PhD
Stuart Julian Farber, MD
Farhood Farjah, MD, MPH
Manuel Ferreira, MD, PhD
Alessandro Fichera, MD
James Fink, MD
Albert Folch, PhD
Eric Ford, PhD
Edward (Eddie) Fox, PhD
Stephen Friend, MD, PhD
Neal Futran, MD, PhD
Vijayakrishna (VK) Gadi, MD, PhD
Philip Gafken, PhD
Xiaohu Gao, PhD
Rochelle Garcia, MD
Louis Garrison, PhD
Jeffrey Russell Geyer, MD
Cyrus Ghajar, PhD
Basavaraj Ghodke, MD
Barbara Goff, MD
Myron Goldberg, MD
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William Grady, MD
Julie Gralow, MD
Carla Grandori, MD, PhD
Heidi Gray, MD
Philip Greenberg, MD
Benjamin Greer, MD
Verena Grieco, MD
Jonathan Grim, MD, PhD
Veronika Groh-Spies, MD
Justin Guinney, PhD
Lia Halasz, MD
Danial Hallam, MD, MSc
William Harris, MD
David Haynor, MD, PhD
Ross Hays, MD
Patrick Heagerty, PhD, MS
Ingegerd Hellstrom, MD, PhD
Karl Erik Hellstrom, MD, PhD
Robert Hevner, PhD
Celestia Higano, MD
Sunil Hingorani, MD, PhD
Daniel Hippe, MS
Fuki Hisama, MD
Rodney Ho, PhD

David Hockenbery, MD
 Noah Hoffman, MD, PhD
 Eric Holland, MD, PhD
 Leroy (Lee) Hood, MD, PhD
 Philip Horner, PhD
 Karen Horvath, MD
 Marshall Horwitz, MD, PhD
 A. McGarry Houghton, MD
 Li Hsu, PhD
 Meredith Hullar, PhD
 Joo Ha Hwang, MD, PhD
 John Inadomi, MD
 Brian Iritani, DVM, PhD
 Gisele Ishak, MD
 Sara Javid, MD
 Mike Jensen, MD
 Robin Jones, MD
 Rachel Katzenellenbogen, MD
 Andrew Kaz, MD
 Christopher (Dirk) Keene, MD, PhD
 Edward Kelly, PhD
 John Kelly, PhD
 Christopher Kemp, PhD
 Larry Kessler, ScD
 Hans-Peter Kiem, MD, PhD
 Forrest Kievit, PhD
 Deok-Ho Kim, PhD
 Edward Kim, MD
 Janice Kim, MD
 Paul Kinahan, PhD
 Rachel Kleivit, PhD
 Sue Knoblaugh, DVM,
 Diplomate, ACVP
 Cynthia Ko, MD
 Wui-Jin Koh, MD
 Mario Kratz, PhD
 Kenneth Krohn, PhD
 J. Nathan Kutz, PhD
 Warren Ladiges, DVM, MS
 Neeraj Lalwani, MD
 Hung-Ming Lam, PhD
 Johanna Lampe, PhD
 Paul Lampe, PhD
 Paul Lange, MD
 George Laramore, PhD, MD
 Mary Laya, MD, MPH
 Sarah Leary, MD, MS
 Amy Lee, MD
 Christoph Lee, MD, MSHS
 Donghoon Lee, PhD
 Janie Lee, MD, MSc
 Jean Lee, MD
 Su-In Lee, PhD, MS
 Sylvia Lee, MD
 Constance Lehman, MD, PhD, FACR
 Christopher Li, MD, PhD
 Jay Liao, MD
 John Liao, MD, PhD
 Andre Lieber, MD, PhD
 Denny Liggitt, DVM, PhD
 Daniel Lin, MD
 Edward Lin, MD
 Hannah Linden, MD
 Jeanne Link, PhD

Alvin Liu, PhD
 Pawadee Lohavanichbutr, MD
 Hailing Lu, MD, PhD
 Georg Luebeck, PhD
 David MacPherson, PhD
 Margaret Madeleine, PhD
 David Madtes, MD
 Karen Makar, PhD
 Kathleen Malone, PhD, MPH, BSW
 Gary Mann, MD, BCh
 Kenneth Maravilla, MD
 Kim Margolin, MD
 Renato Martins, MD, MPH
 David Mathes, MD
 Alvin Matsumoto, MD, FACP
 Nina Mayr, MD, PhD
 Jeannine McCune, PharmD
 Bonnie McGregor, PhD
 Martin McIntosh, PhD
 Anne McTiernan, MD, PhD
 Chris Mehlin, PhD
 Eduardo Mendez, MD
 Juergen Meyer, PhD
 Andrei Mikheev, MD, PhD
 Chris Miller, PhD
 Satoshi Minoshima, MD, PhD
 Robert Miyaoka, PhD
 Kris Moe, MD
 Cecilia Moens, PhD
 Ray Monnat, MD
 R. Bruce Montgomery, MD
 Richard Morrison, PhD
 Colm Morrissey, PhD
 Elahe Mostaghel, MD, PhD
 Pierre Mourad, PhD
 Maciej Mrugala, MD, PhD, MPH
 Beth Mueller, DrPH
 Hyojeong (Hazel) Mulcahy, MD
 Michael Mulligan, MD
 Peter Nelson, MD
 Marian Neuhaus, PhD, RD
 Polly Newcomb, PhD, MPH
 Barbara Norquist, MD
 Matthew Nyflot, PhD
 Dolphine Oda, DBS, MSc
 Matthew O'Donnell, PhD
 Brant Oelschlager, MD
 Jeffrey Ojemann, MD
 James (Jim) Olson, MD, PhD
 Ryan O'Malley, MD
 Tatsuya Ozawa, MD, PhD
 Patrick Paddison, PhD
 Siddharth Padia, MD
 Stephanie Page, MD, PhD
 M. Corinna Palanca-Wessels,
 MD, PhD
 Sheng Pan, PhD
 James Park, MD, FACS
 Edgardo Parrilla Castellar, MD, PhD
 Savannah Partridge, PhD
 Upendra Parvathaneni, MD
 Shilpen Patel, MD
 Amanda Paulovich, MD, PhD
 Ulrike Peters, PhD, MPH

Mark Phillips, PhD
 Amanda Phipps, PhD
 Catherine Pihoker, MD
 Venu Pillarisetty, MD
 Sudhakar Pipavath, MD
 Stephen Plymate, MD
 Seth Pollack, MD
 Michael Porter, MD, MS
 Peggy Porter, MD
 John Potter, MD, PhD
 Bhagwat Prasad, PhD
 Ross Prentice, PhD
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 Suzie Pun, PhD
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 Peter Rabinovitch, MD, PhD
 Daniel Raftery, PhD
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 Tina Rodriguez, MD
 Mary Anne Rossing, PhD
 Robert Rostomily, MD
 Christian Roth, MD
 Alanna Ruddell, PhD
 Erin Rudzinski, MD
 Kenneth Russell, MD
 Joe Rutledge, MD
 Daniel Sabath, MD, PhD
 Lupe Salazar, MD
 Michael Saunders, MD
 John Scheel, MD, PhD
 Andrea Schietinger, PhD
 Stephen Schmechel, MD, PhD
 Rodney Schmidt, MD, PhD
 Mark Schubert, DDS, MSD
 Jeffrey Schwartz, PhD
 Stephen Schwartz, PhD
 Eric Seibel, PhD
 Laligam Sekhar, MD
 William Shain, PhD
 Veena Shankaran, MD
 Dennis Shaw, MD
 Jay Shendure, MD, PhD
 Dean Shibata, MD
 Stacey Shiovitz, MD
 Brian Shirts, MD, PhD
 John Silber, PhD
 Daniel Silbergeld, MD, FAANS, FACS
 Julian Simon, PhD
 Mika Sinanan, MD, PhD

Narendra Singh, MS, MBBS
 Jennifer Specht, MD
 Thomas Spies, PhD
 Janet Stanford, PhD
 Patrick Stayton, PhD
 Gideon Steinbach, MD, PhD
 Nephi Stella, PhD
 Matthias Stephan, MD, PhD
 Paul Swanson, MD
 Elizabeth Swisher, MD
 Karen Syrjala, PhD
 Jonathan Tait, MD, PhD
 Hisham Tamimi, PhD
 Catherine Tangen, DrPH
 Toshiyasu Taniguchi, MD, PhD
 Stephen Tapscott, MD, PhD
 Joanna Thome, PsyD
 Ingelberta (Beti) Thompson, PhD
 Maria Tretiakova, MD, PhD
 Lawrence True, MD
 Karen Tsuchiya, MD
 Cornelia Ulrich, PhD
 Jashvant Unadkat, PhD
 Melissa Upton, MD
 Nicole Urban, MS, ScD
 Renata Urban, MD
 Rajesh Uthamanthil, DVM, PhD,
 DACLAM
 Funda Vakar-Lopez, MD
 Karim Valji, MD
 Thomas Varghese Jr., MD
 Valeri Vasioukhin, PhD
 Thomas Vaughan, MD, MPH
 David Veenstra, PharmD, PhD
 Sonia Venkatraman, PhD
 Robert Vessella, PhD
 Hubert Vesselle, MD, PhD
 Carolyn Wang, PhD
 Ruikang Wang, MD
 Edus (Hootie) Warren, MD, PhD
 Avery Weiss, MD
 Noel Weiss, MD, DrPH
 Maria Westerhoff, MD
 Emily White, PhD
 Alejandro Wolf-Yadlin, PhD
 Paul Woloshin, MBA, PhD
 Douglas Wood, MD
 Jonathan Wright, MD, MS, FACS
 David Wu, MD, PhD
 Peter Wu, MD
 Matthew Yeh, MD, PhD
 Meliha Yetisgen, PhD, MSc
 Raymond Yeung, MD
 Kathryn Yorkston, PhD
 Evan Yu, MD
 William Yuh, MD
 Steven Bacchus Zeliadt, PhD, MPH
 Jing Zeng, MD
 Jing Zhang, MD, PhD
 Miqin Zhang, PhD
 Lue Ping Zhao, PhD
 Ning Zheng, PhD
 Ying Zheng, PhD

Brain Cancer Program

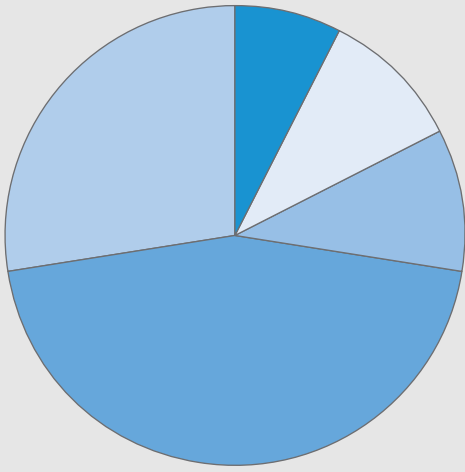
More than 140 researchers and clinicians from Fred Hutch, UW Medicine, Seattle Children's and SCCA make up the Alvord Brain Tumor Center. Together these investigators are focused on accelerating the exchange of knowledge about brain tumors among 35 departments, divisions and programs. They have the largest NIH grant funding base in the nation for brain tumor related research.



An investigator working on cell culture in the Malik Lab at Fred Hutchinson Cancer Research Center. Photo: Fred Hutch.

There will be an estimated 23,380 new cases of brain cancer in 2014 in the United States.

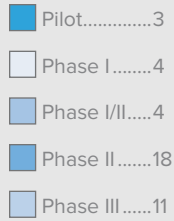
Source: SEER Fact Sheets



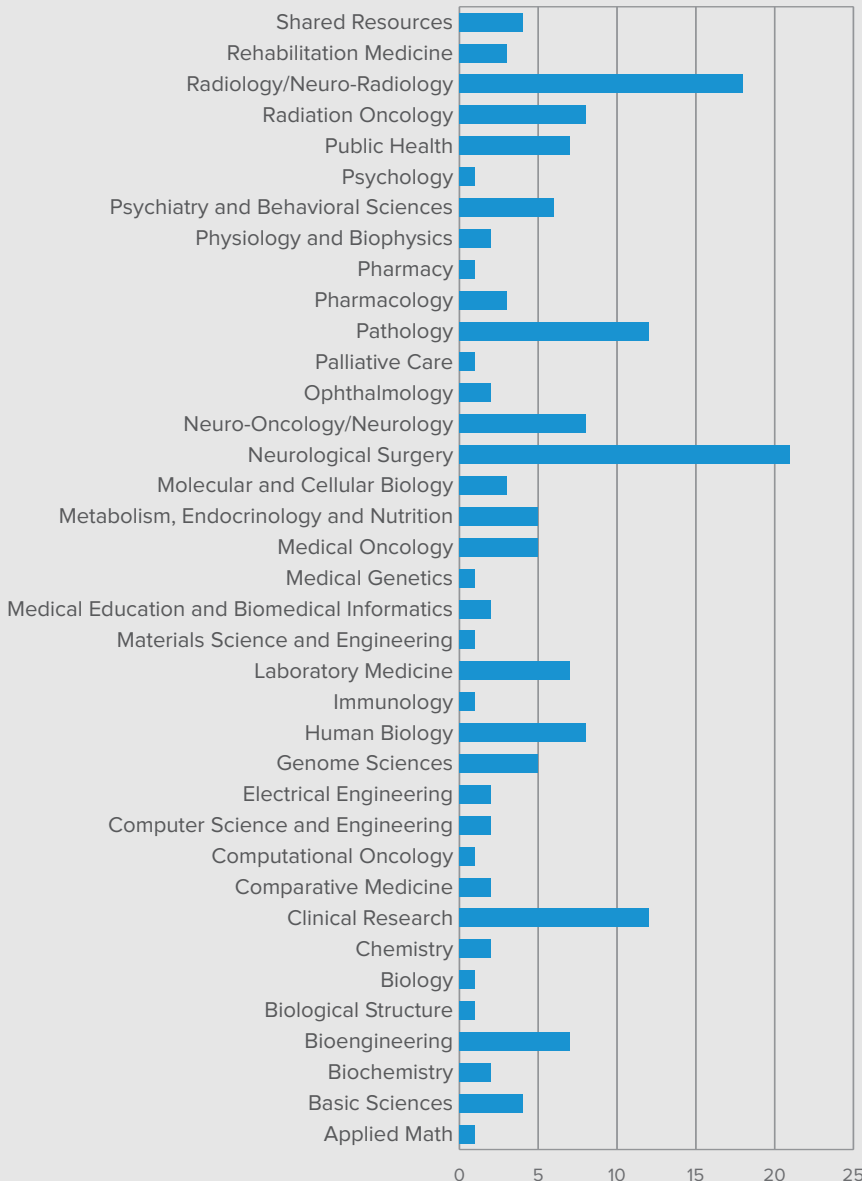
Clinical Trials

Based on 2013 Mid-Year Data Review

Clinical trials currently open, or closed to accrual with follow up or analysis ongoing; excludes minimal-risk studies.



Number of Brain Tumor Faculty by Discipline



TOP FEATURES

- Expert neurosurgeons and neuro-oncologists
- Specialized nurses
- Support services
- Large number of clinical trials
- Gamma knife radiation
- Proton therapy
- Molecular testing
- Glioblastoma and metastases seen within 24 to 48 hours

EXCITING NEXT STEPS

Our new multidisciplinary clinic space will open in January 2015. Brain tumor patients will be able to see their team of doctors, including their medical oncologist and surgeon, in a single visit. Multidisciplinary clinics reduce the number of clinic visits, expedite patient care delivery, and decrease patient and family anxiety.

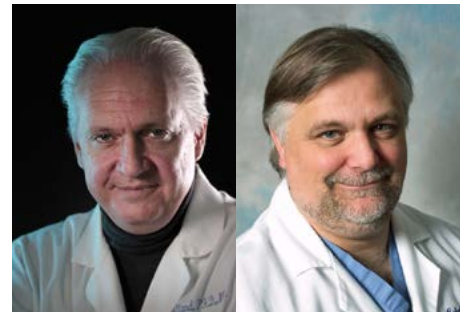
Adult Patient Appointments:
877-520-5000
 Pediatric Patient Appointments:
206-987-2078

Brain cancer is one of the most malignant cancers in the world, afflicting more than 200,000 people in the U.S. There is no known cause, and an effective cure remains elusive. Our program includes experts in oncologic brain and spine surgery who perform more than 500 cancer operations a year. Over 3,000 patients see our doctors in the Neuro-Oncology Program each year. Each patient who meets eligibility criteria has the option for treatment within a clinical trial or treatments using the most recent scientific evidence. Our NIH-funded investigators are joining disciplines, working on developing new drugs through molecular profiling of tumors, implementing immunotherapy in clinical trials, and incorporating proton therapy in the clinical setting to lessen treatment side effects.

MATHEMATICAL MODELING TO IMPROVE THERAPEUTIC EFFICACY

Over the past 30 years, treating glioblastoma has largely involved patients receiving radiation therapy five days per week. Patients receive the maximum dose they can tolerate without intolerable side effects or harming surrounding normal

tissue. Dr. Eric Holland, scientist and neurosurgeon, and his team are studying glioblastoma using mathematical models to better understand what equips cancer cells to become resistant to radiation therapy. The results of this work, currently being tested in cancer models, will ultimately shape novel radiation therapy doses and regimens that maximize therapeutic benefit.



Dr. Eric Holland

Dr. Robert Rostomily

GLIOMA INVASION AND TARGETED THERAPY

Dr. Robert Rostomily, a leading neurosurgeon and scientist, is learning how glioma tumor cells metastasize through a process linked with stem cell activity, often referred to as epithelial to mesenchymal transition. These stem cells may be important for tumor growth and metastasis. By understanding these processes, Dr. Rostomily and other clinicians can better select appropriate treatments. “Stem cells are a therapeutic delivery system,” Dr. Rostomily says. “It’s figuring out how to get stem cells to do the work in treatment that will be the key to better patient outcomes, and our team is on the leading edge of this field.”



Dr. Mike Jensen

NEW HOPE FOR PEDIATRIC CANCER

Dr. Mike Jensen developed a method of reprogramming the body’s own immune system to kill cancer. This involves safe but effective genetic re-engineering of an individual’s T cells. This research in immunotherapy promises to supplant the often devastating side effects of radiation

and chemotherapy with safer intervention strategies. Dr. Jensen and his team are now working to translate this breakthrough to children with cancer. “We are aiming to reduce or eliminate the need for chemotherapy and radiation treatments that have debilitating, lifelong effects on those who survive cancer,” Dr. Jensen says.



Dr. Manuel Ferreira

IDENTIFICATION OF DRUG TARGETS

Dr. Manuel Ferreira studies the genetics of aggressive brain tumors. Currently, he is studying aggressive meningiomas. He is analyzing approximately 400 historic, banked tumor samples to decode genomic and proteomic profiles and identify potential drug targets. His innovative work could lead to the prediction of sensitivity and resistance to therapy and the development of new therapies for these and other aggressive brain tumors.

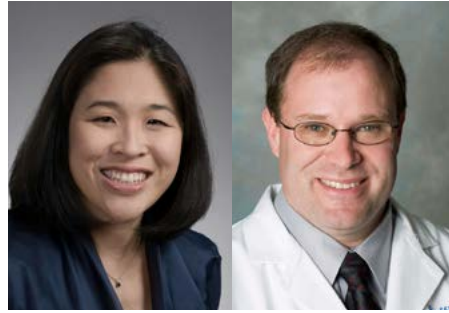
A PROMISING CLINICAL TRIAL IN GLIOBLASTOMA

Dr. Maciej Mrugala is spearheading a clinical trial for patients diagnosed with a highly aggressive type of brain cancer called glioblastoma multiforme (GBM). This clinical trial, which opened in 2013, is evaluating the efficacy of a novel drug (rindopepimut, an experimental cancer vaccine) designed to stimulate the patient's immune cells to attack brain tumor cells. More specifically, this drug will "train" the body's immune cells to seek out a target on the cancer cells (EGFRvIII) that differ from normal brain cells. The clinical trial evaluates whether this treatment leads to improved patient outcomes when compared to standard chemotherapy regimens.



Dr. Maciej Mrugala

BRAIN CANCER TRANSLATIONAL RESEARCH SPOTLIGHT



Dr. Lia Halasz

Dr. Jason Rockhill

REVOLUTIONARY TREATMENT OPTIONS

Proton therapy is now, for the first time, available to brain cancer patients in the Pacific Northwest. This therapy targets cancer cells at the particle level: it delivers high, more-effective doses of radiation with great precision, significantly limiting

radiation exposure to surrounding healthy tissue. In addition to dramatic success in reducing tumor burden, it promises to cause fewer short- and long-term side effects. UW Medicine's brain mapping program, which maps motor, speech, and cognitive areas of the brain, is the largest and busiest program in the Pacific Northwest. Our neurological surgeons use functional brain mapping to help them identify areas that control movement, sensation, talking and understanding speech. This data is used to help find a balance between removing diseased tissue and preserving crucial brain functions.

Radiation Proton Therapy Appointment:

Dr. Lia Halasz or Jason Rockhill
Call (206) 306-2800

"As a cancer doctor, I think of myself as a patient advocate, and as such, try to provide patients and families with a sense of autonomy and control over their cancer."

Dr. Marc Chamberlain, Neurologist, Neuro-Oncologist



Dr. Marc Chamberlain



Dr. Jim Olson

DEVELOPING NEW DRUGS: "OPTIDES"

Dr. James (Jim) Olson and colleagues pioneered an entirely new class of drugs: "optimized peptides" or "optides" for short. These tiny molecules bind and disable cancer cells while simultaneously sparing healthy cells. "Optides offer unprecedented accuracy, are far less

toxic, far more effective, and flexible enough to be used in a wide range of applications," Dr. Olson says. He pioneered clinical work in optides with the development of "tumor paint" made from scorpion venom. Visit www.projectviolet.org for more information.



Dr. Hans-Peter Kiem

BONE MARROW TRANSPLANTS FOR GLIOBLASTOMA

Dr. Hans-Peter Kiem is investigating the use of bone marrow (stem cell) transplants to improve treatment of solid tumors, specifically glioblastoma. Patients' stem cells are made resistant to chemotherapy through genetic modification and put back into the

body via bone marrow transplantation. This enables patients to withstand more doses of chemotherapy than otherwise possible, resulting in improved quality of life and prolonged survival. "We are continuing chemotherapy longer in these patients than in any other study currently," Dr. Kiem says.

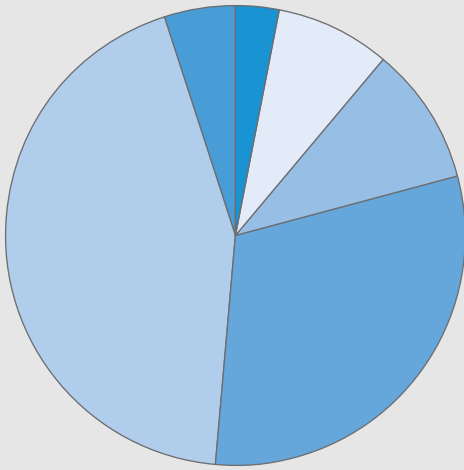
Breast Cancer Program

Our top-ranked, multidisciplinary breast cancer team provides a full spectrum of clinical care, from early detection, diagnosis and staging to the provision of cutting-edge treatments and long-term follow-up through our survivorship programs. The breast cancer research program along with the cancer-focused population scientists at Fred Hutch have long been leaders in research on the etiology and prevention of breast cancer.



Drs. Savannah Partridge, Habib Rahbar, and Constance Lehman examine digital breast images. Photo: Seattle Cancer Care Alliance.

“Seeing the impact the Breast group is having in the community and around the world is inspiring.” Jalle Gebisa (STTR Reserach Coordinator)



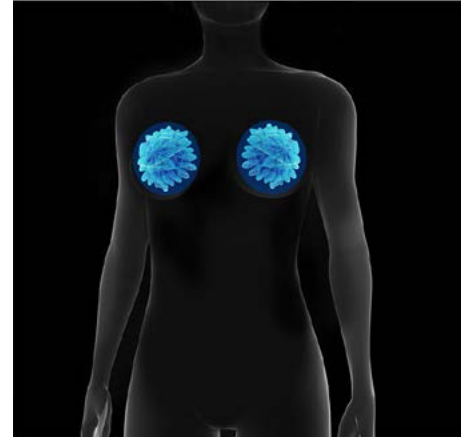
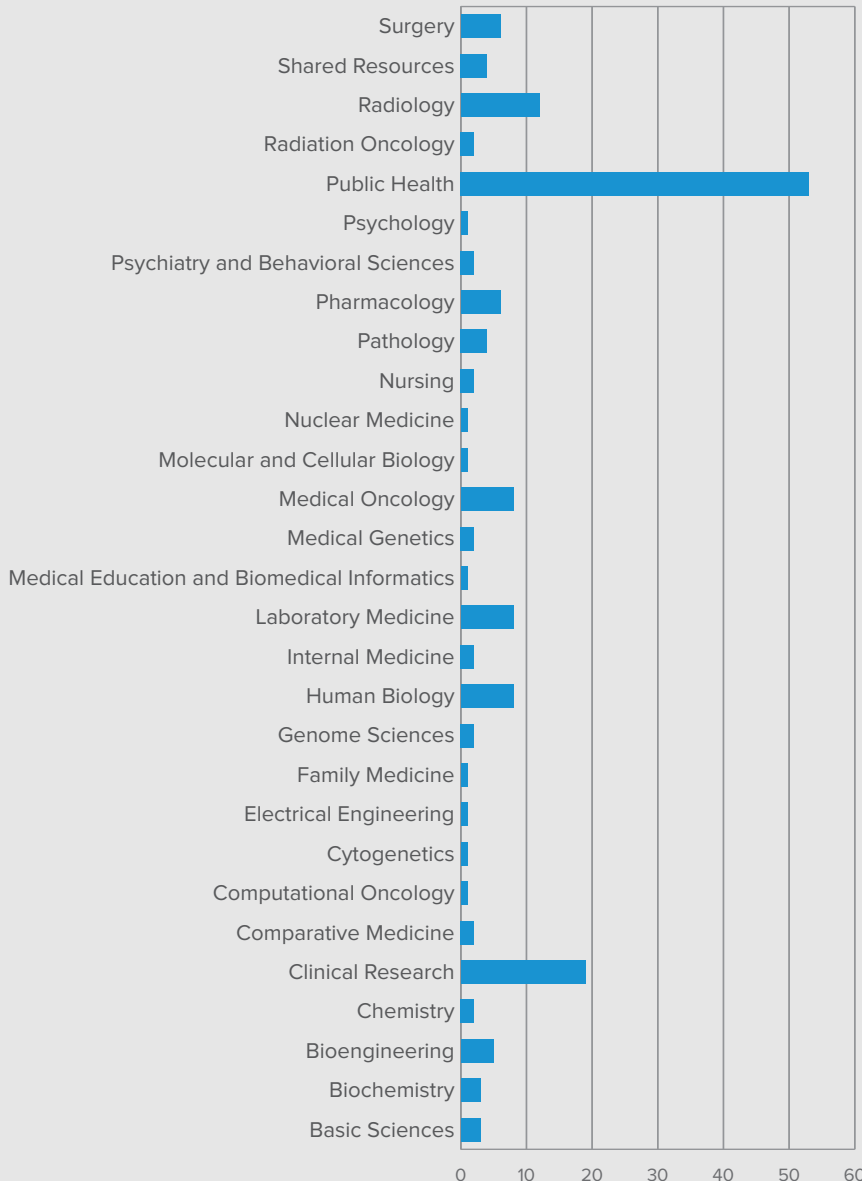
Clinical Trials

Based on 2013 Mid-Year Data Review

Clinical trials currently open, or closed to accrual with follow up or analysis ongoing; excludes minimal-risk studies.



Number of Breast Cancer Faculty by Discipline



TOP FEATURES

- Best survival outcomes in the nation for stages 0, I, II and III patients
- Top-ranked clinical science program grant (SPORE)
- Lead cutting-edge clinical trials
- Breast Health Clinic
- Survivorship Clinic
- Leader: Breast Health Global Initiative w/ Susan G. Komen Foundation

WOMEN'S CENTER

The Women's Center at SCCA was created to care for women through all phases of cancer treatment, from diagnosis to follow-up, in one space utilizing the Breast Health Clinic, Newly-diagnosed Options for Women Clinic, Breast Cancer Specialty Center, Breast and Ovarian Cancer Prevention Program, and Women's Wellness Clinic. Each clinic targets a specific need for the patient population forming a comprehensive network of support services for women pre- and post-diagnosis.

Patient Appointments:
855-557-0555

This year, more than 225,000 women in the United States will learn they have breast cancer. Three-fourths of them will be 50 or older, but breast cancer also affects younger women and men.



Dr. Peggy Porter

Dr. Martin Cheever

“Patients should not have to grin and bear it—that’s exactly why I’m here.”

Connie Burkhardt, Caregiver/SCCA Patient Relations



Dr. Connie Lehman

TOP-RANKED SCIENCE PROGRAM

The Seattle Cancer Consortium receives research funding as a Breast SPORE (Specialized Program Of Research Excellence), which recognizes expertise in research and clinical care. Led by Drs. Peggy Porter and Martin “Mac” Cheever, the goal of the Breast Cancer Program is to reduce the incidence and subsequent mortality of breast cancer by fostering interdisciplinary collaboration between researchers in basic science, genetics, clinical medicine, cancer prevention, and epidemiology at Fred Hutch, UW, and the clinical community.

EARLY DETECTION THROUGH ADVANCED SCREENING

UW Medicine and SCCA provide state-of-the-art breast cancer screening tailored to patient risk levels. Digital mammography, digital breast tomosynthesis (also known as 3D mammography), and breast MRI are clinically available modalities for breast cancer screening. In addition digital tomosynthesis and automated breast ultrasound (ABUS) are being studied as part of a multi-modality screening trial currently being conducted at SCCA to evaluate the clinical impact of ABUS on breast cancer screening diagnostic pathways. Once breast cancer is diagnosed, women can be quickly transitioned into the multidisciplinary Breast Cancer Specialty Clinic.

There are 2.9 million breast cancer survivors alive in the US today—the largest group of all cancer survivors.

Source: Susan G. Komen Foundation



Dr. Cyrus Ghajar

UNDERSTANDING TUMOR RESISTANCE TO STOP THE SPREAD OF DISEASE

Dr. Cyrus Ghajar’s research focuses on how tumor cells living near blood vessels maintain a resistant status and ultimately give rise to recurrence after therapy. His research holds great promise to halt metastatic disease before it ever

has a chance to start, which would result in tremendous gains in patient survival.

GLOBAL ONCOLOGY INITIATIVES

The Breast Health Global Initiative (BHGI), directed by Dr. Ben Anderson, pioneered the development of comprehensive, resource-sensitive, evidence-based clinical guidelines for international breast health and cancer control to improve outcomes in low- and middle-resource countries. In addition, the Global Oncology Program focuses on infection-related cancers around the globe, such as Uganda. Dr. Julie Gralow uses this opportunity to reach out to women at risk of breast cancer, initiating breast cancer prevention efforts.



Dr. Julie Gralow

SEATTLE BUSINESS MAGAZINE'S 2014 LEADERS IN HEALTH CARE AWARD

Dr. Julie Gralow, Director of Breast Medical Oncology at SCCA, received the Achievement in Community Outreach Silver Award for helping women heal and thrive. "My goal is to help cancer patients of all stages and in all parts of the world live a balanced, active life and take charge of those factors over which they have control – including healthy diet, physical activity and emotional well-being." says Dr. Gralow.

SAVING LIVES

Drs. Garnet Anderson and Ross Prentice played a leading role in the Women's Health Initiative (WHI), a national study of disease prevention in 161,808 postmenopausal women, launched in 1991. In 2002, the WHI first reported on the increased risk of breast cancer associated with hormone replacement therapy. The hormone therapy trial revolutionized the field, identifying a heightened risk of breast cancer with the use of hormone replacement therapy. It is estimated that this finding saved \$37.1 billion, led to 20,000 fewer breast cancer cases a year and saved thousands of lives. Fred Hutch continues to receive funding to follow more than 100,000 women still enrolled in the study.

CENTER FOR POPULATION HEALTH AND HEALTH DISPARITIES

Several NIH institutes have partnered to provide funds for the Centers for Population Health and Health Disparities (CPHHD) program. This extensive network of research teams is improving our understanding of health disparities, evaluating them as complex rather than single-factor phenomena. The goal of the center at Fred Hutch is to understand and prevent precursors of breast cancer and to reduce breast cancer morbidity and mortality among Latinas.



Dr. Marian Neuhouser

OTHER FACULTY CONTRIBUTIONS TO RISK PREVENTION

Dr. Christopher Li has shown that smoking is a risk factor and has also found a link between injectable contraceptive and an aggressive form of breast cancer in young women.

Drs. Amanda Phipps and Anne McTiernan contributed to a growing body of evidence that obesity and inactivity lead to an increased risk of breast cancer. Conversely, risk reduction is observed as activity increases.

Dr. Polly Newcomb has shown that women who consume 14 or more alcoholic drinks per week increase their risk of breast cancer by 24 percent.



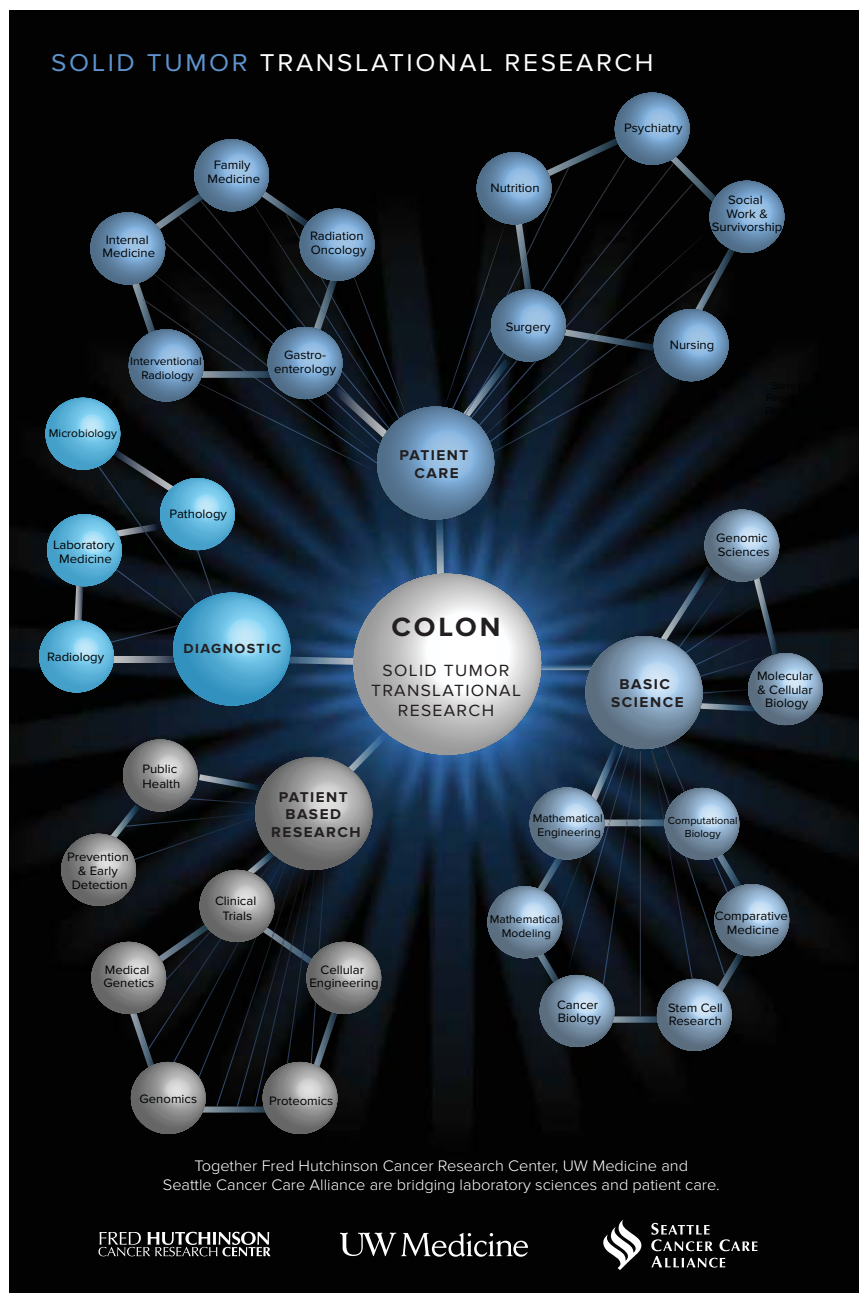
Dr. Garnet Anderson.
Photo: Stephanie Felix/Fred Hutch

UNDERSTANDING AND PREVENTING BREAST CANCER DISPARITIES IN LATINAS

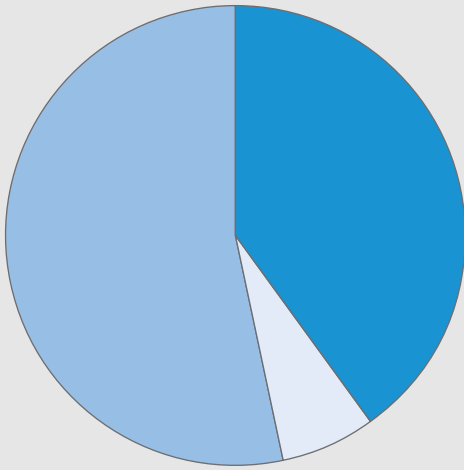
Dr. Marian Neuhouser leads the Comparing Original Mexican Diets and Standard US Diets study as part of NCI's CPHHD program. This study compares metabolic response between the diets to better understand how dietary patterns may contribute to breast cancer risk.

Colon Cancer Program

The colorectal cancer team is a highly interdisciplinary group of investigators dedicated to improving the prevention and effective treatment of colorectal cancer. Research in basic science, genetics, clinical medicine, cancer prevention, and epidemiology at Fred Hutch and the UW has advanced our understanding of colorectal cancer and is establishing better prevention and treatment strategies including innovative screening and surgical techniques, and targeted therapy for this common cancer.



“The doctors are outstanding at Seattle Cancer Care Alliance and UW Medical Center. When I was diagnosed, several of my friends, who are nurses, told me there was only one place for me to go, and that was SCCA.” Anita Mitchell (colon cancer survivor)



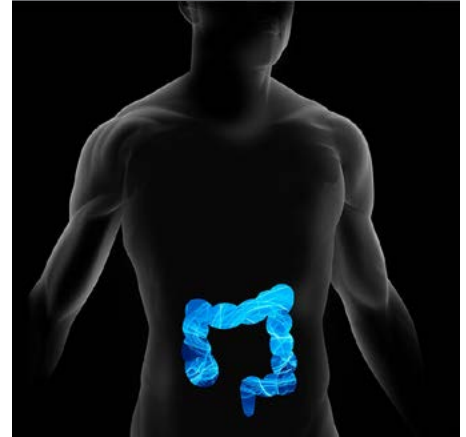
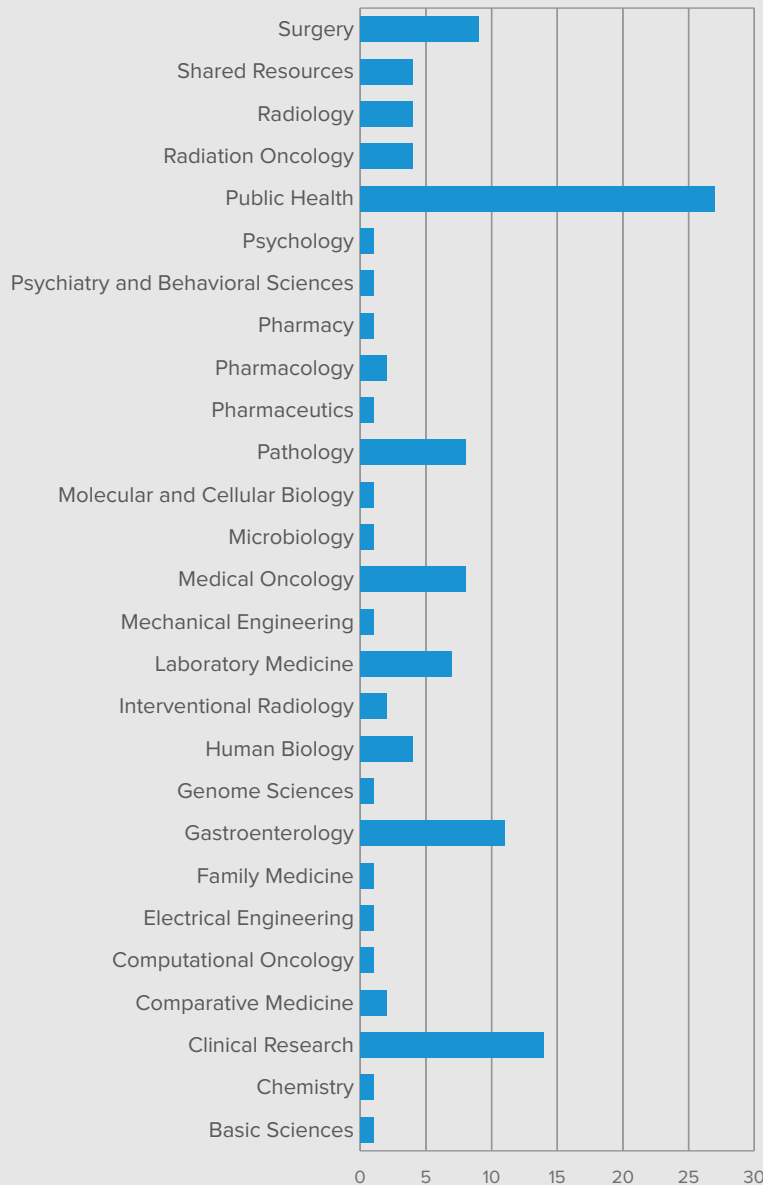
Clinical Trials

Based on 2013 Mid-Year Data Review

Clinical trials currently open, or closed to accrual with follow up or analysis ongoing; excludes minimal-risk studies.

- Phase II6
- Phase II/III...1
- Phase III8

Number of Colon Tumor Faculty by Discipline



TOP FEATURES

- Best survival outcomes in the nation for stage I, III and IV patients
- GI Cancer Prevention Clinic
- Multidisciplinary Colorectal Cancer Clinic, which includes gastroenterologists, colorectal surgeons, medical oncologists, radiation oncologists, and genetic counselors
- Heritable risk assessment and genetic testing using cutting edge genetic testing method

COLORECTAL CANCER FAMILY REGISTRY

The Seattle Colorectal Cancer Family Registry, hosted by Fred Hutch, is one of six colon cancer registries in the world. It has become one of the largest collections of interview and biospecimen data, with an enrollment of more than 2,300 colorectal cancer patients and more than 5,500 of their relatives.

Patient Appointments:
855-557-0555

Colon cancer is the third most common cancer in the United States. Each year colon cancer afflicts approximately 150,000 patients and their families, resulting in approximately 50,000 deaths. However, it can take up to 10 or more years for polyps to become cancerous. This long window of time, in which disease could potentially be detected, offers a unique opportunity to save lives. Our researchers are actively working on risk prevention, identification of molecular markers for cancer detection and treatment, and improvements in cancer treatment.



A team of doctors led by Dr. Alessandro Fichera (front left) review images of a colon cancer patient in preparation for surgery. Photo: Craig Harold.

RISK PREVENTION

Calcium – Dr. Ulrike Peters found that women who consume more than 800 milligrams of calcium a day reduce their risk of colon cancer by as much as 26 percent when compared to women who consume less than half that amount.

Sunlight – Researchers at our institutions are investigating whether the risk of colon cancer increases as lifetime exposure to sunlight decreases.

Exercise – Dr. Anne McTiernan found that regular, moderate-to-vigorous exercise significantly reduces the likelihood of forming colon polyps and colon cancer in men.

Identifying At-Risk Populations – The risk of advanced-stage colon cancer and death varies extensively by race. African Americans, American Indians, Chinese, Filipinos, Koreans, Hawaiians, Mexicans, South/Central Americans and Puerto Ricans are 10 percent to 60 percent more likely than non-Hispanic whites to be diagnosed with advanced-stage colon cancer.

Effect of Aspirin on Smokers – Aspirin and other nonsteroidal anti-inflammatory drugs may reduce the risk of colorectal cancer by up to 40 percent. Our researchers found that this protective effect may not extend to long-term smokers.

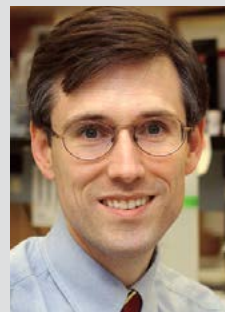


Dr. Scotty Ramsey

SCREENING INNOVATIONS

Dr. Scott Ramsey has found that colon cancer patients diagnosed by a routine test to detect blood in the stool have less advanced disease and significantly lower health care costs than those who were diagnosed because of symptoms. Less-invasive options for colorectal cancer screening are being studied.

One example, virtual colonoscopy, uses special X-ray equipment to take pictures of the colon without the need for sedation, which should lead to increased screening rates, reduction in health care costs and improved overall survival.



Dr. William Grady

MOLECULAR MARKERS FOR COLON CANCER SCREENING

Dr. William Grady is conducting a multi-center, 6,000-subject validation study of several biomarkers for early detection of colon cancer. There are two stool-based biomarkers and one blood-based biomarker being validated in this NCI/Early Detection Research Network funded project.

He is working on identifying the earliest detectable changes in precancerous cells to develop a safe, accurate and easy way to administer a test that detects cancer in blood or stool samples.

COLORECTAL CANCER SPECIALTY CLINIC

In a single appointment patients meet with their entire team of UW Medicine doctors, including a medical oncologist and surgeon. Patients leave with a comprehensive treatment plan and clear next steps.

END COLON CANCER NOW CAMPAIGN

Community leaders across Washington joined forces with Fred Hutch to raise awareness about colon cancer and screening at EndColonCancerNow.org. This site is loaded with colon cancer information, links, a quiz, and great videos that were made for the “Get Screened!” contest.



COLORECTAL CANCER TRANSLATIONAL RESEARCH SPOTLIGHT



Dr. Edward Lin

ESCAPING DRUG RESISTANCE

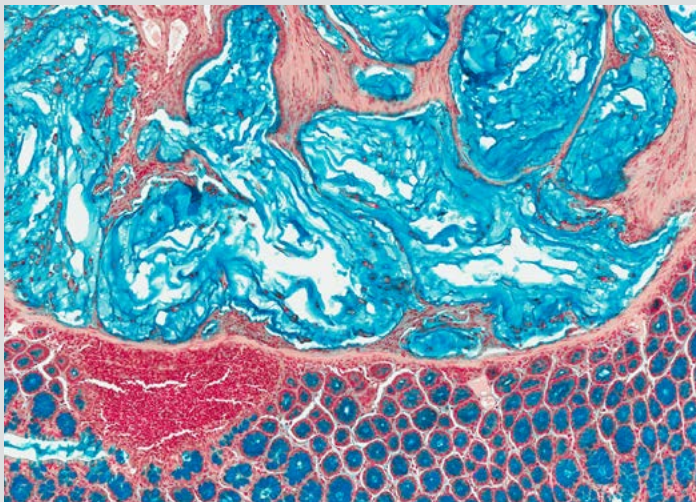
Funded by the Gateway for Cancer Research, 2014 Cancer Researcher of the Year award, Dr. Edward Lin is leading a Phase II clinical trial for advanced stage colorectal cancer patients. Observing that cancer stem cells become resistant to conventional

chemotherapy, his team developed a novel therapy called ADAPT: Activating (CSCs) from Dormancy And Potentiate for subsequent Targeting.

ADAPT therapy is a unique approach that activates, exposes and destroys evasive colorectal cancer stem cells. To date, approximately 150 patients have been treated with ADAPT therapy. About 40 percent of Dr. Lin's patients have achieved complete, or near complete, responses, which means there is little or no detectable cancer. Even more encouraging is that ADAPT therapy has extended patients' lives to a median survival of 92.7 months, all while avoiding the traditional and more toxic regimen of intravenous chemotherapy.

“The excellent working team relationships I have with my colleagues—oncologists, radiologists, pathologists, and gastroenterologists—is one of the highlights of my job. I am grateful to be working with such bright, caring, knowledgeable specialists.”

Dr. Karen Horvath, Colorectal Cancer Surgeon



Colon cancer cells stained with Alcian Blue at 10x magnification.
Photo: Experimental Histopathology/Fred Hutch.

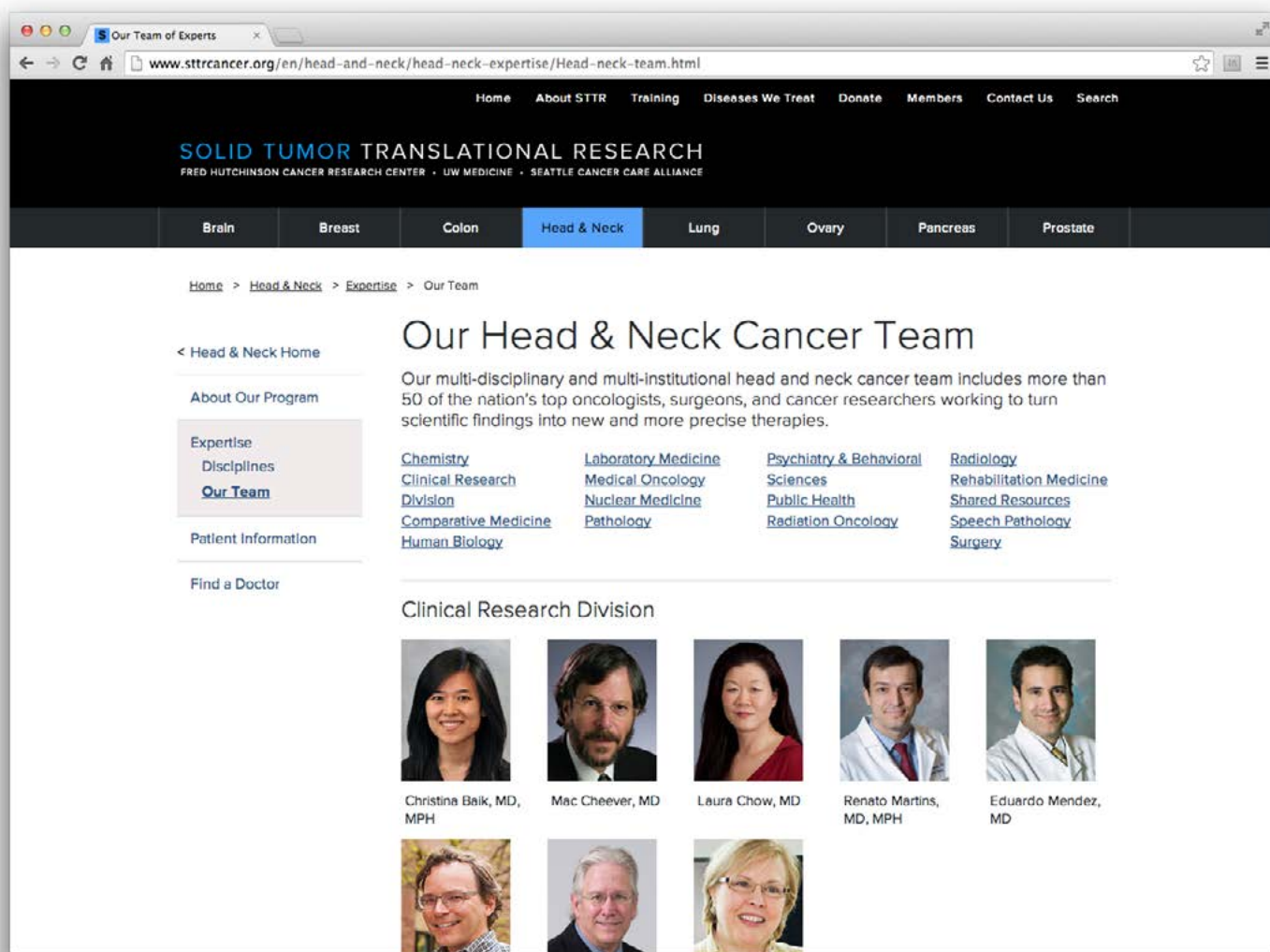
MEDICAL ONCOLOGY CLINIC

Our patients benefit from access to the latest chemotherapies and our ability to incorporate surgical treatments when appropriate.

This clinic also provides innovative molecular profiles of each individual's cancer with a test called OncoPlex. Results from this test can lead doctors to choose the most effective treatment for a patient's specific cancer profile.

Head and Neck Cancer Program

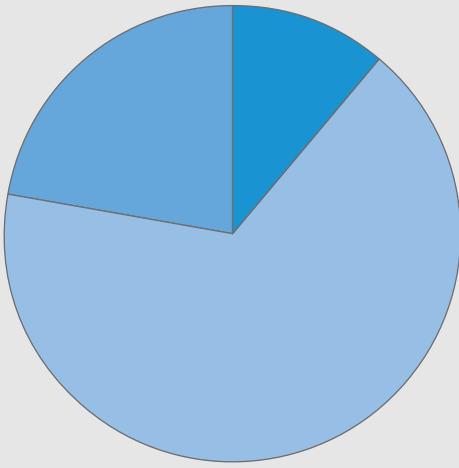
Nationally recognized as leaders in the field, the multidisciplinary cancer care team delivers state-of-the-art care for all cancers of the head and neck. This team includes head and neck surgeons, reconstructive surgeons, oral and maxillofacial surgeons, radiation oncologists, medical oncologists, and neuro-radiologists. The head and neck program offers patients the broadest menu of therapy options locally and regionally.



Our Head and Neck cancer investigators and clinicians have expertise across a large range of disciplines. www.STTRCancer.org

“The passion and enthusiasm demonstrated by the Head and Neck group is impressive and exciting to see.” Rachel Galbraith (STTR Research Coordinator)

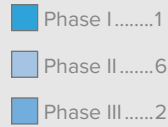
“Treating a patient as I would like to be treated if I were one.” Dr. Upendra Parvathaneni, Radiation Oncologist



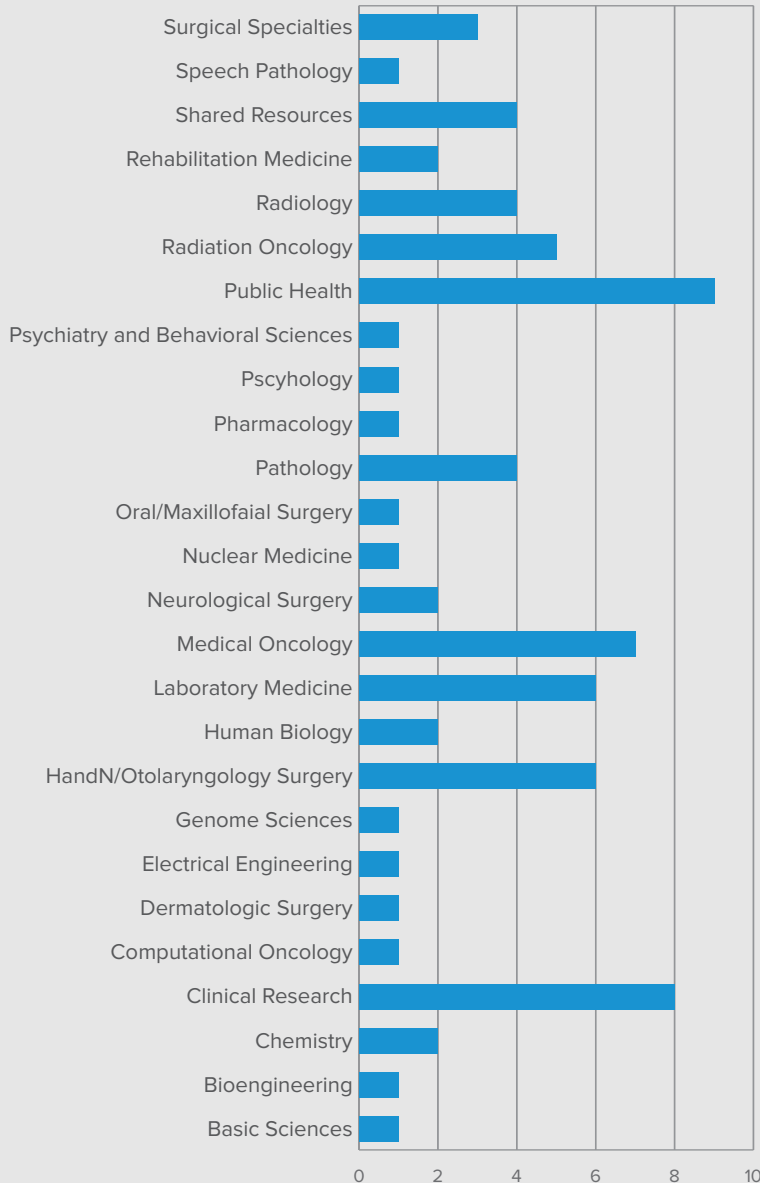
Clinical Trials

Based on 2013 Mid-Year Data Review

Clinical trials currently open, or closed to accrual with follow up or analysis ongoing; excludes minimal-risk studies.



Number of Head and Neck Tumor Faculty by Discipline



TOP FEATURES

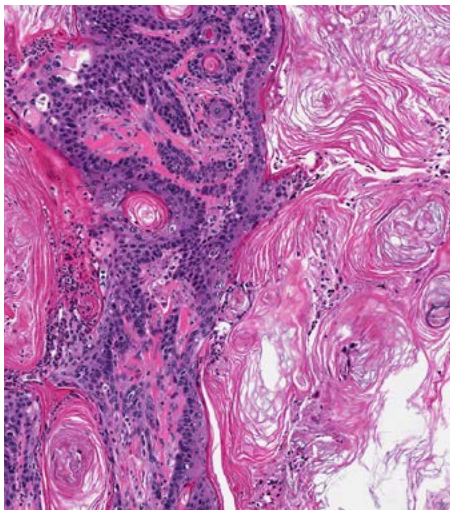
- Largest number of immunotherapy clinical trials for head and neck cancer using anti-PD-L1 therapies on the West Coast
- Neutron therapy
- Molecular profiling
- Multidisciplinary patient care
- Physician-scientists

TUMOR BOARD AND PERSONALIZED CARE

Every year, 350 new head and neck cancer patients are evaluated at UW Medical Center. A multidisciplinary Head and Neck Tumor Board, which includes head and neck reconstructive and dental surgeons, radiation and medical oncologists, and neuro-radiologists, meet weekly to come up with the best treatment plan for each patient. Every patient receives a personal care team: a head and neck surgeon, hematologist/oncologist, nurse case manager, and a radiation oncologist, if needed.

Patient Appointments:
855-557-0555

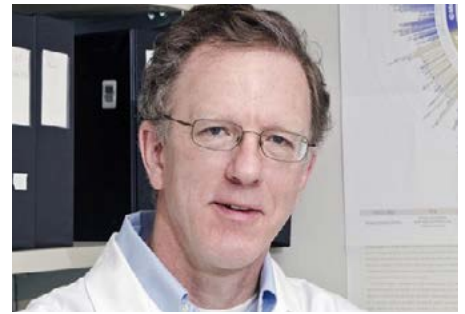
Head and neck cancers account for approximately 3 percent to 5 percent of all cancers in the United States. This year, an estimated 55,070 people (40,220 men and 14,850 women) will develop head and neck cancers. SCCA is the Northwest's leader in head and neck cancer care. UW Medicine and Fred Hutch doctors are working to develop new cancer treatments every day. Our goal is to achieve a cure and simultaneously minimize short and long-term side effects of therapy.



RESTRICTING TUMOR GROWTH FACTOR GENES

Drs. Chu Chen and Eduardo Mendez have identified gene signatures in patient head and neck tumors that can better predict patient survival. Dr. Mendez is also discovering innovative ways to block genes, thereby limiting cancer cell growth.

Invasive squamous cell carcinoma with characteristic keratin pearl formation at 100x magnification. Photo: Sue Knoblauch/Fred Hutch.



Dr. Christopher Kemp

A NOVEL APPROACH TO DRUG DISCOVERY

Research led by Dr. Chris Kemp has created a “Discovery Engine” using computational and functional genomics to identify targeted drug therapies for some of the most highly aggressive, treatment-resistant tumors including head and neck squamous cell carcinoma. His team has developed an efficient and accurate method to identify the vulnerabilities of cancer cells, including those carrying mutations in TP53, and have shown that targeting these vulnerabilities with drugs is effective in preclinical models of human cancer.



Dr. Stephen Schwartz Dr. Chu Chen

DETERMINING ORAL CANCER RISK FACTORS

Drs. Stephen Schwartz, Chu Chen and Eduardo Mendez are working to gain a better understanding of how genetic, virologic and lifestyle characteristics work together to affect oral cancer risk and prognosis. They have found a connection between oral cancer risk and the presence of both human papillomavirus (HPV) and herpes simplex virus 1 (HSV1) in the blood.

PREVENTING UNNECESSARY SURGERY

Dr. Chu Chen and colleagues have, for the first time, identified a four-gene set that signals when oral cancer has spread to lymph nodes in the neck. This discovery may lead to a clinical test that identifies which patients should undergo neck dissection to remove metastatic disease.

GROUND-BREAKING TESTING TECHNIQUES

Our program features innovative testing platforms, utilizing the most cutting-edge research available. Access to these tools not only allows us to provide better diagnostic and clinical care, it also helps us to advance the scientific field.

Precision medicine is based on the idea that knowing the genes that cause a person's cancer enables better identification of target therapies for those genes, leading to shrinkage or elimination of the tumor.

Research undertaken by Drs. Neil Futran, Christina Baik and Upendra Parvathaneni are providing the foundation necessary to advance this strategy and provide direct benefits to patients in the form of targeted therapies and treatments. In addition, their work will enhance UW Medicine's expertise in precision medicine and will serve as a key piece in introducing fully personalized medicine for head and neck cancers in the Pacific Northwest.

HEAD AND NECK TRANSLATIONAL RESEARCH SPOTLIGHT

State-of-the-Art Patient Care

Targeted Therapies

Recently, the use of targeted therapy has shown progress by improving treatment outcomes and minimizing side effects. Our faculty use agents that specifically target growth receptors on tumor cells, such as cetuximab and erlotinib, so that our patients have the best possible outcomes.

Surgery

The newest surgical technique offered is Transoral Robotic-assisted Surgery (TORS) for tumors of the upper aerodigestive tract (tumors of the back of the tongue and throat). UW Medical Center is the only center in the region to offer this specialized surgery using the da Vinci Robot that allows patients to return home within one to two days.

Neutron Therapy

SCCA is one of only three facilities in the United States to offer neutron therapy, a type of radiation therapy shown to be very effective against salivary gland tumors. The unique Clinical Neutron Therapy System (CNTS) is also available at UW Medical Center.

Proton Therapy

Through SCCA our patients have access to proton therapy—a type of radiation that is more targeted and limits radiation exposure to surrounding healthy tissue. This allows for maximum benefit from radiation therapy with fewer side effects than traditional techniques.



Dr. Eduardo Mendez

PRECISION MEDICINE

Dr. Eduardo Mendez' research group is leading a study to identify DNA structural variations that lead to aberrant gene dysregulation in metastatic head and neck cancer. His group also hopes to identify which of these genes can be targeted to halt metastatic spread of disease. Dr. Mendez is also interested in identifying abnormal cancer genes whose products can be targeted to kill head and neck cancer tumor cells. He is leading an innovative Phase I precision medicine clinical trial that would study

combination treatments before surgery in patients with specific head and neck cancer mutations. The goal of his research is to match drugs to specific tumor mutations which will lead to more specific, less-toxic therapies and ultimately to personalized treatment.



Dr. Laura Chow

ADVANCING TREATMENT

Drs. Renato Martins and Laura Chow are testing new combinations of drug therapies to improve

treatment of head and neck cancers, including anti-PD-L1 therapies. These drugs block the PD-L1 receptor, which enables immune cells to properly detect and kill tumor cells.

Lung Cancer Program

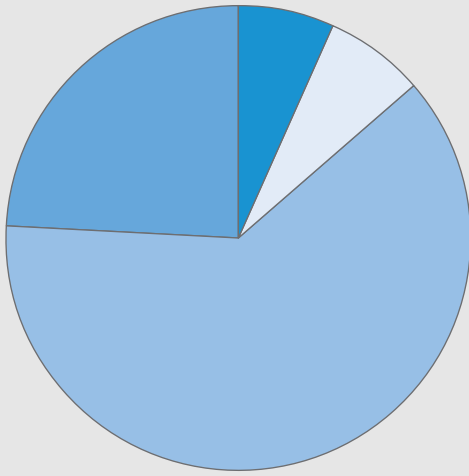
A multidisciplinary team of researchers across UW Medicine, SCCA and Fred Hutch are combining laboratory and clinical studies focused on improving lung cancer survival. Pulmonologists, chest radiologists, medical oncologists, thoracic surgeons, and radiation oncologists offer comprehensive services for both diagnosis and treatment, and offer access to numerous clinical trials for novel lung cancer therapeutics.



Dr. David Madtes with a lung cancer patient in the Early Detection and Prevention Clinic. Photo: Seattle Cancer Care Alliance.

“It is very important to me that every patient receive courteous, compassionate, and state-of-the-art medical care, just as I would want for members of my family. Our team approach to the diagnosis and treatment of lung cancer enables me to provide the very best care for my patients.”

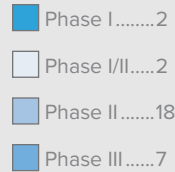
Dr. David Madtes, Director, Lung Cancer Early Detection and Prevention Clinic



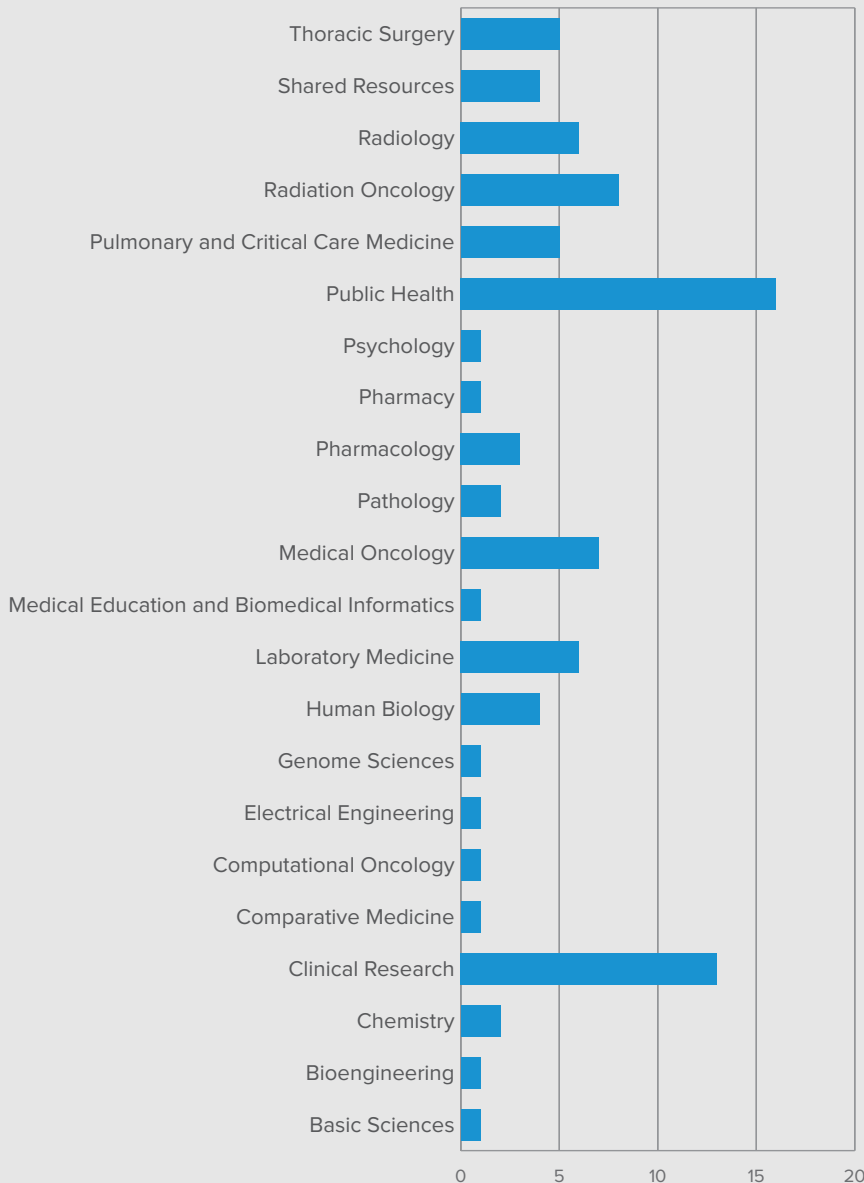
Clinical Trials

Based on 2013 Mid-Year Data Review

Clinical trials currently open, or closed to accrual with follow up or analysis ongoing; excludes minimal-risk studies.



Number of Lung Tumor Faculty by Discipline



TOP FEATURES

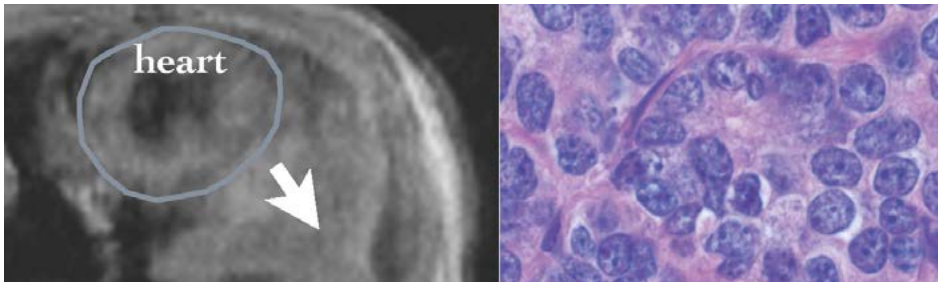
- Highest survival rates in the nation for stage I, II, III, and IV patients
- Lung Cancer Prevention Clinic
- Nodule Board: multidisciplinary team reviews charts and plans follow-up
- Translational research working group
- Screening program with Department of Energy and Hanford Nuclear Reservation retirees

SCREENING CENTER OF EXCELLENCE

SCCA is one of only two centers in Washington state recognized as a Screening Center of Excellence by the Lung Cancer Alliance, a nonprofit organization dedicated to saving lives and advancing research by empowering those living with and at risk for lung cancer.

Patient Appointments:
855-557-0555

Lung cancer is the leading cause of cancer death in the United States, and the five-year survival rate—just 15 percent, a number that has not changed significantly in three decades—reflects the challenge in clinical management of this disease. Each year, about 228,000 people are diagnosed with lung cancer, which is responsible for one-third of all cancer deaths in the United States. Researchers are looking into ways to detect, prevent and cure lung cancer through new gene therapies.



Magnetic resonance imaging and histology of small cell lung cancer that develops in genetically engineered mice studied in the MacPherson Lab. By generating tumor avatars harboring the same mutations as found in human lung cancer, genes important for cancer can be better understood and novel therapies can be tested. Photo: Dr. David MacPherson.

THE ROLE OF VITAMIN D IN CANCER PREVENTION

Research published in *The American Journal of Clinical Nutrition*, under the direction of Dr. Marian Neuhouser, found that increased vitamin D intake was associated with a lower lung cancer risk in never-smoking postmenopausal women.

DETECTING LUNG CANCER IN NON-SMOKERS

In women, roughly half of lung cancer cases are not attributable to smoking. STTR faculty at Fred Hutch are leading an effort to discover early indicators of lung cancer in people who have never smoked. The studies are designed to improve understanding of lung cancer's biology and to develop a test to detect early-stage lung cancer. Global estimates suggest that as many as 25 percent of all lung cancers worldwide—15 percent of those in men and 50 percent of those in women—are not attributable to smoking.

BUILDING NATIONAL PARTNERSHIPS

The Building Trades National Medical Screening Program (BTMed) and SCCA have expanded their early lung cancer detection program for high-risk construction workers in western Washington. This program is providing CT screening scans for people who may have been exposed to hazardous substances while working at the nation's nuclear defense sites and has already made a meaningful impact within this community.



Dr. David MacPherson

IDENTIFYING GENE MUTATIONS AS A MEANS TO THERAPIES

Dr. David MacPherson studies two tumor types, small cell lung carcinoma (SCLC) and retinoblastoma. He conducts genomic analyses of human tumors to identify gene mutations that may contribute to how tumors grow and spread. His goal is to understand

the mechanisms through which mutated genes cause tumors. This understanding will enable the exploration of more precise, targeted therapies.



Dr. David Madtes

EARLY DETECTION & PREVENTION CLINIC

Doctors in the SCCA's Lung Cancer Early Detection and Prevention Clinic, one of only a few in the country, assess risk and evaluate patients who have been diagnosed with abnormalities that might be signs of lung cancer and work on clinical studies to detect cancer

at the earliest possible stages. The clinic's emphasis on early detection—including a low-dose CT screening program—and prevention through smoking cessation help make the clinic a unique, valuable resource.



Dr. Kristina Crothers

EARLY DETECTION IN HIV-POSITIVE INDIVIDUALS

Lung cancer is a leading cause of cancer death among HIV-infected persons. Dr. Kristina Crothers and her colleagues are developing a mathematical model to estimate the benefits of lung cancer screening among HIV-positive individuals, identifying the best candidates and regimen for screening. This study will provide relevant, clinically useful results to inform the care of HIV-positive patients and policy regarding lung cancer screening in this population.



Dr. Michael Mulligan. Photo: Seattle Cancer Care Alliance.

REGION'S MOST EXPERIENCED TREATMENT PROGRAM

Our Lung Cancer Program is the largest, most experienced program of its kind in the Pacific Northwest. Through SCCA, patients have access to the full spectrum of lung cancer treatments. More clinical studies on

lung cancer take place here than anywhere else in the region, so our patients have access to the latest treatment options.

Due to the efforts of Dr. Michael Mulligan and his colleagues, the UW Medical Center has been recognized as a regional center of excellence for video-assisted thoracic surgery (VATS) and other lung care procedures, handling a large volume of referrals. While a few other Northwest hospitals use VATS, Dr. Mulligan has become the leading surgeon for training new doctors in the technique.

"I truly enjoy the act of helping people, and I like using my hands to make things work. Being a surgeon allows me to do both."

Dr. Leah Backhus, Thoracic Surgeon



Dr. Leah Backhus

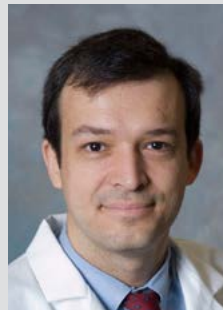


Dr. A. McGarry Houghton

IMMUNE CELLS AND TUMOR GROWTH

Dr. Houghton is a pulmonologist specializing in critical care, pulmonary complications of malignant disease and lung cancer. His group is investigating the role of innate immune cells within the tumor microenvironment. The goal is to determine how they

have been recruited, and by what mechanism a specific immune cell effector has impacted lung tumor growth. This research will inform additional studies with impacts on drug target development.



Dr. Renato Martins

EXPANDING TREATMENT OPTIONS

Dr. Renato Martins is conducting a Phase II clinical trial for patients with ALK-activated Non-Small Cell Lung Cancer (NSCLC) who have never received Crizotinib treatment. NSCLC is the most common type of lung cancer, accounting for 85-90 percent of all cases, and 3-8 percent of these patients have ALK gene aberrations. Patients with this type of cancer have fewer treatment options, and this trial aims to improve those patient outcomes.

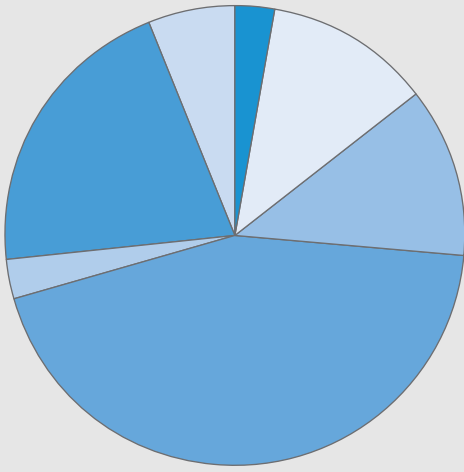
Ovarian Cancer Program

We have a comprehensive multidisciplinary team approach to the treatment of patients with ovarian cancer that includes state-of-the-art surgery, chemotherapy, radiation, nutrition, social work, physical therapy, psychiatry, and nursing. Our translational science promotes the best chances of cure and the highest possible quality of life. Our genetic program in ovarian cancer is world-renowned and focuses on using genetic information to drive prevention and novel, targeted treatments.



Drs. Barbara Goff (right) and Linda Hipps (left), obstetrics and gynecology, and resident (center) perform robot-assisted gynecologic surgery with da Vinci technology at UW Medical Center. Photo: UW Medical Center.

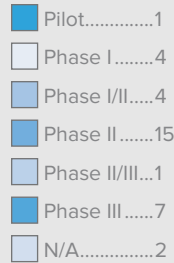
“I consider myself a partner in my patients’ care. Having a multidisciplinary approach is key. I enjoy it when patients take an active role in their health care. My role is to give them options, as there is no one right way to do things. Seattle Cancer Care Alliance is a great place because of this multidisciplinary approach.” Dr. Barbara Goff, Gynecologic Oncologist



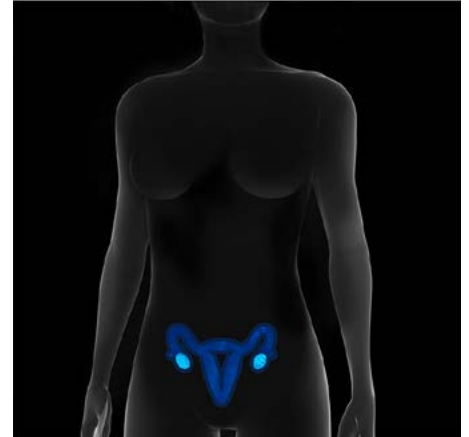
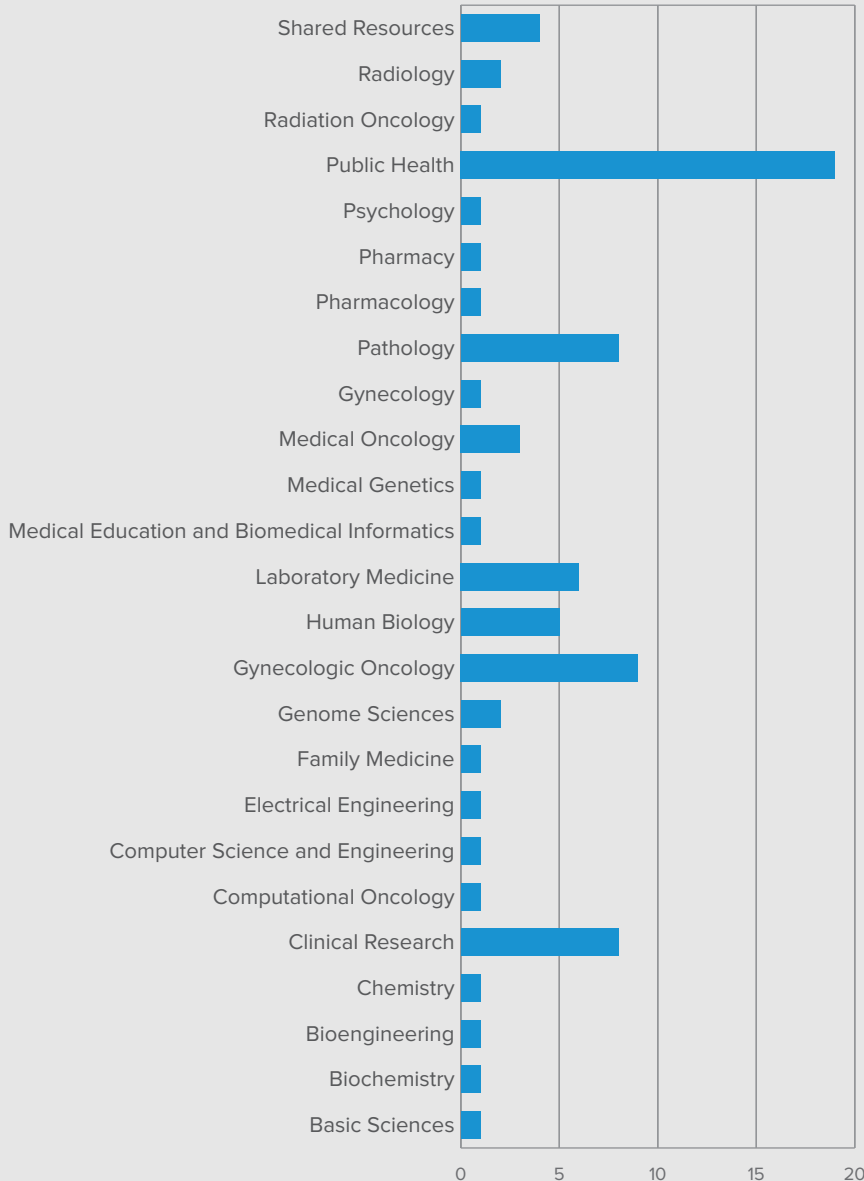
Clinical Trials

Based on 2013 Mid-Year Data Review

Clinical trials currently open, or closed to accrual with follow up or analysis ongoing; excludes minimal-risk studies.



Number of Ovarian Tumor Faculty by Discipline



TOP FEATURES

- Top-ranked clinical science program grant (SPORE)
- Immunotherapy clinical trials
- Women’s Cancer Prevention Program
- Multidisciplinary patient care physician-scientists

NEW SCREENING METHODS

Drs. Barbara Goff, M. Robyn Andersen and their team found that combining a patient questionnaire with a standard blood test could improve early detection of ovarian cancer by 20 percent. Their study represents the first evaluation of an ovarian cancer symptom-screening tool in a primary care setting among normal-risk women.

Patient Appointments:
855-557-0555

In the United States, approximately 25,000 women will be diagnosed with ovarian cancer each year, and 15,000 will die from the disease. This is due to the fact that almost 70 percent of women with epithelial ovarian cancer are not diagnosed until the disease is in the advanced stages, having spread to the abdomen or beyond. However, there are new tools being explored to detect ovarian cancer early. When ovarian cancer is caught in the early stages, before it has spread beyond the ovary, more than 90 percent of women will survive beyond five years.



Dr. Nicole Urban

COMPREHENSIVE TRANSLATIONAL RESEARCH PROGRAM

The Pacific Ovarian Cancer Research Consortium (POCRC) led by Dr. Nicole Urban, has been continuously funded since 1999 by NIH grants to conduct innovative ovarian cancer research. The POCRC is a community-based, multidisciplinary research program that involves clinicians, laboratory and public health scientists from several research and medical institutions on the West Coast with the goal of translating laboratory discoveries into clinical treatments or diagnostic tests to improve patient outcomes.

IMMUNOTHERAPY IN ACTION

A POCRC project, led by Dr. Nora Disis, investigates the use of immunotherapy in the treatment of ovarian cancer. In only five years, the multidisciplinary team proposed a vaccine for use in the adjuvant setting, identified an immune target, evaluated safety and therapeutic efficacy through ovarian models, and completed a Phase I clinical trial. This trial is an exceptional example of translational and collaborative research. Preliminary results indicate a promising rate of response among advanced ovarian cancer patients.

“My goal is to achieve the best possible care for my patients by tailoring individual treatments and employing a multidisciplinary approach.” Dr. John Liao, Gynecologic Oncologist



Dr. Martin McIntosh

PIONEERING IMMUNOGENIC CANCER RESEARCH

A team led by Dr. Martin McIntosh, head of the Computational Biology Program at Fred Hutch, is using high-throughput technology and emerging public data resources to identify hundreds of proteins as possible immune targets. If these proteins targets are found to provoke a

response, they may be potentially useful in the development of immune-based therapies. The NCI has awarded his team \$4.4 million over four years to pioneer an ambitious new way to harness the power of the adaptive immune system to control cancer.



Dr. Barbara Goff

COMBINED SCREENING APPROACHES WITH GLOBAL IMPACTS

Dr. Barbara Goff is improving screening for ovarian cancer through the combination of symptom reporting and simple biomarkers. Since ovarian cancer only occurs in one of 2,500 women over age 50, a test with a very low false positive rate is needed to

avoid unnecessary surgery. A clinical trial is currently under way to measure the efficacy of a combined symptom-biomarker screening test to distinguish benign masses from malignant tumors. Results will have broad-ranging impacts, especially in developing countries with few resources.



Dr. Elizabeth Swisher

GENETIC RISK ASSESSMENT

A new and low-cost method for genomic screening has identified mutations in 12 genes that predispose women to cancers of the ovary, fallopian tubes and peritoneum. More patients with ovarian carcinoma carry cancer-predisposing mutations than previously thought. Dr. Elizabeth Swisher and her research team are looking for a more complete genetic picture of ovarian and related cancers. Finding the group of genetic mutations most often associated with these cancers, and developing a simple test to detect these mutations, could lead to earlier identification of the women most prone to malignancies.

BIOMATERIAL ENGINEERING TO DELIVER CANCER-KILLING CELLS

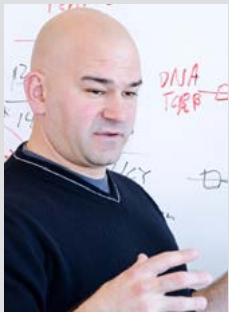
Dr. Matthias Stephan pioneered a biodegradable cellular scaffold that can be implanted at a surgical site and deliver cancer-specific T-cells directly to malignant cells to prevent relapse. T-cells delivered this way are better at seeking out and destroying cancer cells compared to T cells infused into the blood or injected into tumor cavities.



Physician-Scientist Dr. Matthias Stephan teaches a high school teacher about the "smart" synthetic materials he is designing that can precisely activate immune responses against cancer cells left behind after surgery. Photo: Bo Jungmayer/Fred Hutch.

APPLYING T-CELL THERAPY TO OVARIAN CANCER

Dr. Thomas Spies and Veronika Groh-Spies are studying the divergent roles of the NKG2D lymphocyte receptor and its ligands in human cancer. They found that subsets of carcinoma cells (including ovarian) co-opt expression of the NKG2D receptor, thus exploiting the presence of its ligands for self-stimulation of tumorigenicity. Their current study aims at addressing the relative contributions of the immunologic (T cell and NK cell-mediated) versus oncogenic (carcinoma cell-mediated) roles of the NKG2D receptor in ovarian cancer.



Dr. Harlan Robins

T-CELL SEQUENCING FOR FUTURE THERAPIES

Dr. Harlan Robins and his team utilize deep sequencing of rearranged T-cell receptor beta (TCRB) genes to characterize the basic properties of tumor infiltrating lymphocytes in ovarian carcinoma. Comprehensive analysis of T-cell populations at the clonal level using these

new technologies will provide valuable insights into the immunobiology of tumors and autoimmune disease and will have important applications to the design and analysis of future therapies.



Dr. Benjamin Greer

EXPERT CARE AND TREATMENTS

STTR has more gynecological oncologists than any other medical center or clinic in the five-state region surrounding Washington. "Here we have a pure, limited practice for women with gynecologic cancers, or presumed gynecologic cancers," says Dr. Benjamin Greer, Director of

Gynecologic Oncology at SCCA. "That's all we do." This highly specialized medical practice means that patients get the best care and the best outcomes," he says.

Pancreatic Cancer Program

We have developed an integrated, multidimensional translational program across Fred Hutch, UW Medicine, and SCCA—the Center for Accelerated Translation in Pancreas Cancer (CATPAC). The components of CATPAC include population sciences, high-risk disease, and preclinical and clinical trials.



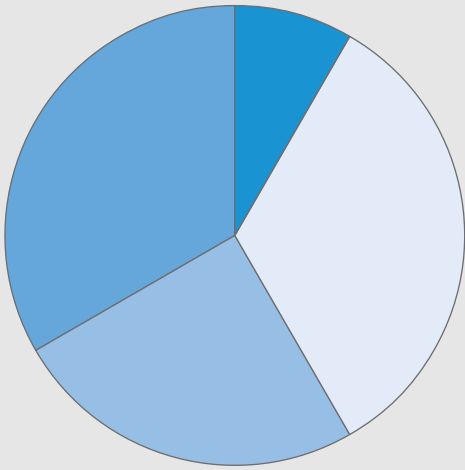
A laboratory technician prepares samples of RNA from tumor tissue. Photo: Fred Hutch.

Feedback from pancreatic cancer survivors:

“One thing about SCCA...we got constant follow-up...everyone was so compassionate.” Dan Berglund

“Dr. (Teresa) Brentnall came to visit me in the hospital. The team I had was amazing.” Frank Shinoda

“(Seattle Cancer Care Alliance was) the best choice that could have been made. The care was superb from day one.” Robert Lowe

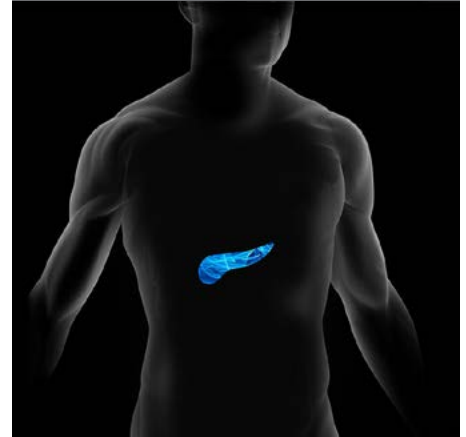


Clinical Trials

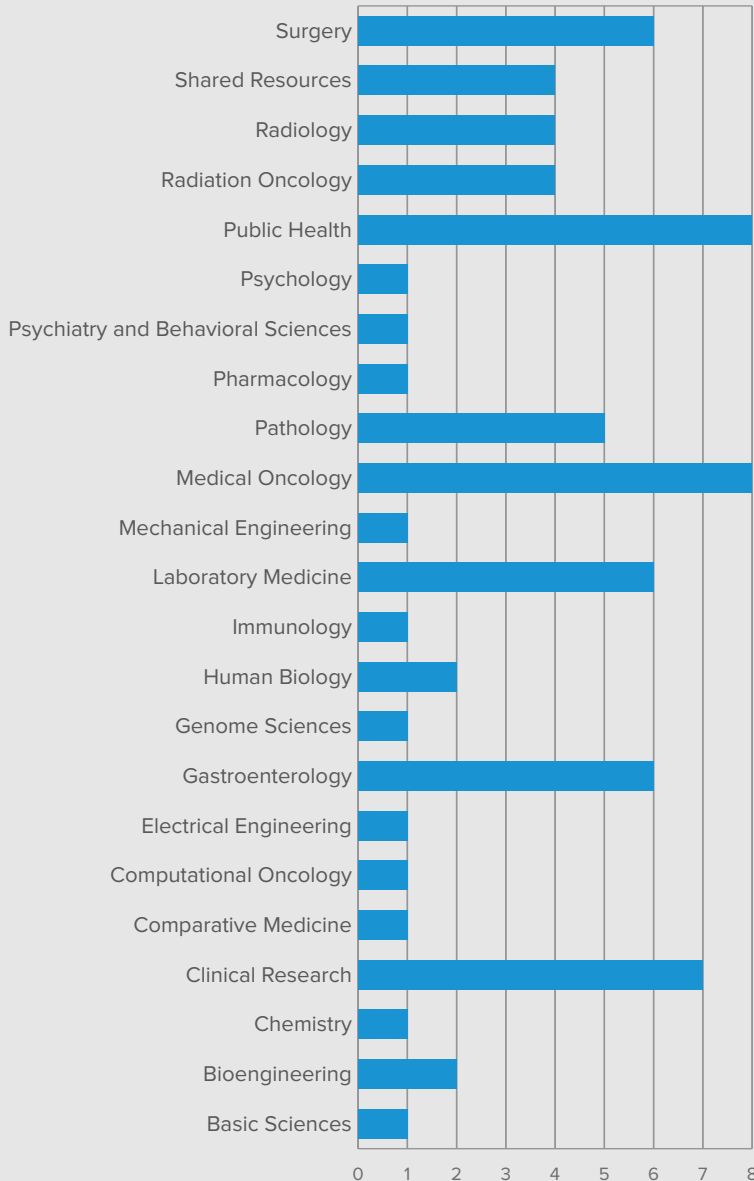
Based on 2013 Mid-Year Data Review

Clinical trials currently open, or closed to accrual with follow up or analysis ongoing; excludes minimal-risk studies.

- Phase I1
- Phase I/II4
- Phase II3
- Phase III4



Number of Pancreatic Tumor Faculty by Discipline



TOP FEATURES

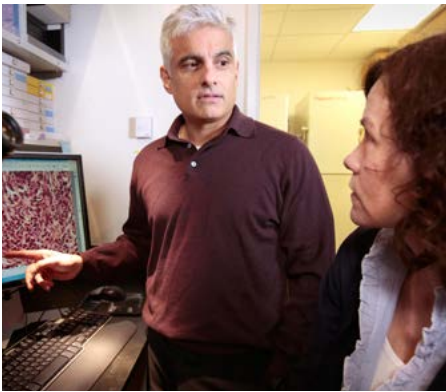
- Preclinical program for new detection and treatment strategies
- Genetically engineered cancer models developed and in use around the world
- Ground breaking immunotherapy research
- World’s largest population-based study examining environmental and genetic risk factors
- Proton therapy center
- Advanced imaging and molecular diagnostics
- Sophisticated endoscopic procedures

PANCREAS CANCER SPECIALTY CLINIC (PCSC)

Multidisciplinary care is taken to a new level at the PCSC. Our dedicated team includes surgical, medical and radiation oncologists, radiologists, and pathologists, as well as nurses, palliative care experts, nutritionists, social workers and other patient-support providers, working together so patients leave their first appointment with a comprehensive evaluation and treatment recommendation.

Patient Appointments:
855-557-0555

The American Cancer Society estimates that about 44,000 people in the United States will be diagnosed with pancreatic cancer each year. Pancreatic cancer is the 10th most common cancer in men and women, but is the fourth leading cause of cancer-related deaths. These cancers could be curable if diagnosed early, if innovative treatments are used to tackle the tumor's unique features, and if researchers uncover the underlying causes for the disease.

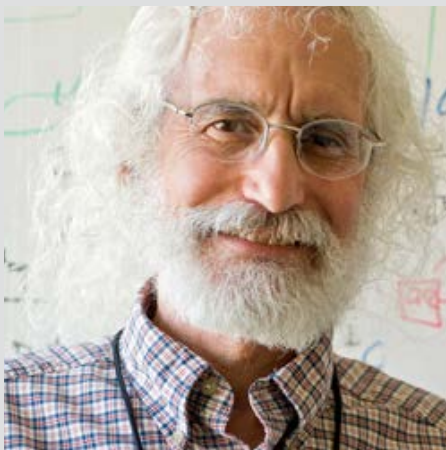


Dr. Sunil Hingorani and Dr. Ingunn Stromnes examining immune cells under the microscope. Photo: Robert Hood/Fred Hutch.

IMPROVING THERAPEUTIC EFFECTIVENESS

A few years ago, Dr. Sunil Hingorani and his team made an exciting discovery: pancreatic cancers secrete large amounts of a polymer that forms a protective shield, collapses blood vessels and prevents systemic chemotherapies from penetrating into the tumor bed. They further found that dissolving this barrier with an enzyme called PEGPH20 enabled chemotherapy drugs to readily perfuse the tumor. “It appears that the very same chemotherapies that essentially did not work at all previously do seem to work in conjunction with the enzyme,” says Dr. Hingorani, “and this provides a new way to understand why this

cancer has been so resistant to drugs that have worked in other contexts.” Based on promising results from an already completed Phase Ib study, Dr. Hingorani and colleagues are now testing this strategy in two different national randomized Phase II clinical trials, comparing the two current standard-of-care regimens for pancreatic cancer with or without the enzyme treatment. His team has also discovered that pancreatic cancers cloak themselves with suppressor cells that enable the tumors to evade the immune system. His team is studying ways to target these suppressor cells to allow the immune system to “see” and attack the tumors as an adjunct to enhance adoptive immune therapies.



Dr. Philip Greenberg

SUPERCHARGING THE IMMUNE SYSTEM TO KILL CANCER

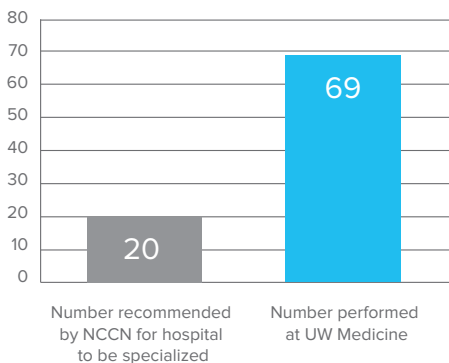
Dr. Philip Greenberg works on adoptive T-cell therapy of cancer, in which large numbers of cancer-fighting patient T cells are expanded outside the body and infused back into the patient. His work has shown substantial promise, but broad application has been in part limited by difficulty generating T cells that can recognize and bind strongly

to the tumor cells in each patient. He is currently using the models of spontaneously developing pancreatic cancer, developed by Dr. Sunil Hingorani, that express the same antigens as the human disease, to evaluate how improvements can be achieved in antitumor activity without causing toxicity to normal tissues. The goal is to develop a strategy that can be translated not only to the treatment of patients with progressive pancreatic cancer, but also to other tumors.

SURGERY EXPERIENCE MATTERS

Surgery is the only treatment with the potential to cure pancreatic cancer—but only if all the cancer can be removed. According to the American Cancer Society, the risk of complications from this operation is significantly lower when it's performed at an experienced cancer center by a surgeon who does the procedure frequently. Our surgeons perform roughly three times the number of pancreatic resection surgeries required to be considered a specialized practice.

Pancreatic Resections Performed in 2013



PANCREATIC CANCER TRANSLATIONAL RESEARCH SPOTLIGHT

CAUSES OF FAMILIAL CANCER

Dr. Teresa Brentnall is leading a research group that studies the growth of tumors in the gastrointestinal tract with an emphasis on pancreatic cancer. A passionate cancer researcher, Dr. Brentnall is the driving force behind the UW's innovative Pancreatic Cancer Surveillance Study, which has been tracking high-risk patients' families for a decade in an effort to improve early detection methods.

The team found a mutation in a gene called Palladin in family members with pancreatic cancer, or precancerous lesions; the mutation was not found in unaffected family members or those with nonfamilial disease. The researchers discovered that the abnormal expression of Palladin allows cells to become increasingly mobile, a key feature of cancer cells. Dr. Brentnall's discovery is unlocking a key to our understanding of familial pancreatic cancer and blazing a path for future avenues of research into this disease.



Dr. Teresa Brentnall

“Compassion is the guiding principle of our multidisciplinary approach to patient care; therefore, we strive to advise patients as we would our own family while recognizing there may be fundamental differences in our belief systems.”

Dr. Venu Pillarisetty, Surgical Oncologist



Dr. Gabriela Chiorean

PANCREATIC BIOMARKER DISCOVERY

Dr. Gabriela Chiorean specializes in treating patients with pancreatic, colorectal, and neuroendocrine cancers. Dr. Chiorean's research focus is on phase 1 trials of experimental therapeutics and biomarker discovery. Dr. Chiorean's team is developing new clinical

trials involving tumor pathway inhibitors such as a new EGFR/HER2 therapy (afatinib) for pancreatic cancer, as well as medications (PARP inhibitor veliparib), which enable chemotherapy drugs to block tumor progression. These trials will have correlative biomarkers for precision medicine to help determine the patients most likely to benefit.



Dr. Eric Seibel

INNOVATIVE BIOENGINEERING FOR EARLY DETECTION

Dr. Eric Seibel of the University of Washington's Department of Mechanical Engineering is developing ultrathin flexible scanning fiber endoscopes (SFE) that allow access to regions of the body that were previously inaccessible. These endoscopes are designed to enable

the early detection and treatment of cancers in peripheral regions of the lung and pancreas. Main attributes of the SFE technology include: High-resolution imaging within an ultrathin size; integrated optical diagnoses and laser therapies with full-color imaging; low-cost components; and a highly flexible and durable shaft.

Prostate Cancer Program

Our team of medical oncologists, pathologists, radiation oncologists, and surgeons bring deep clinical and translational science expertise in the prevention, detection and treatment of early and late-stage prostate cancer. These physician-scientists who specialize only in prostate cancer, help set national guidelines and promote the early testing of the newest treatments. Major efforts now bring precision medicine approaches to patients through the SU2C (Stand Up 2 Cancer) Dream Team project.

Get Smart
ABOUT YOUR PROSTATE CANCER

Risk

Touchy subject? Tough luck.
Taking care of your loved ones means taking care of yourself, and that means talking to your doctor about prostate cancer.

Men older than 50 were once advised to get yearly screenings for prostate cancer, but recently, researchers have concluded that routine screenings and aggressive treatment for prostate cancer aren't always the best approach, since the downsides of treatment sometimes outweigh the benefits. But that doesn't mean you can just forget about it. Talk to your doctor to understand your personal risks and preferences. *In the meantime, here's what you need to know.*

'Tell It to Me Straight'

WHAT'S A PSA, ANYHOW?
A Prostate-Specific Antigen Test measures the level of the PSA protein, produced by the prostate gland, in your blood

PROTEIN LEVELS
LIKELIHOOD

Higher protein levels = Higher likelihood of prostate cancer

Prostate Cancer Infographic. Credit: Killer Infographics.

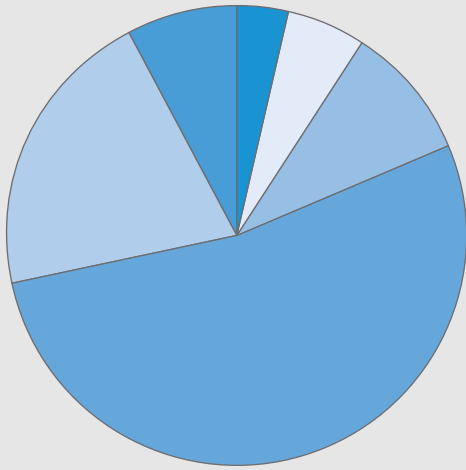
"My goal is to provide the highest level of medical and surgical care in a compassionate environment where the patient is an active member of the team."

*Dr. Jonathan Wright,
Urologic Oncologist*

"We want to provide the best care, all the time, for every patient."

*Dr. Robert Bruce Montgomery,
Clinical Director, Genitourinary
Medical Oncology*

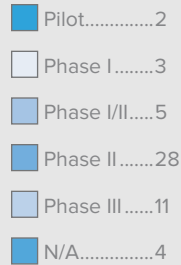
PROSTATE CANCER TRANSLATIONAL RESEARCH METRICS



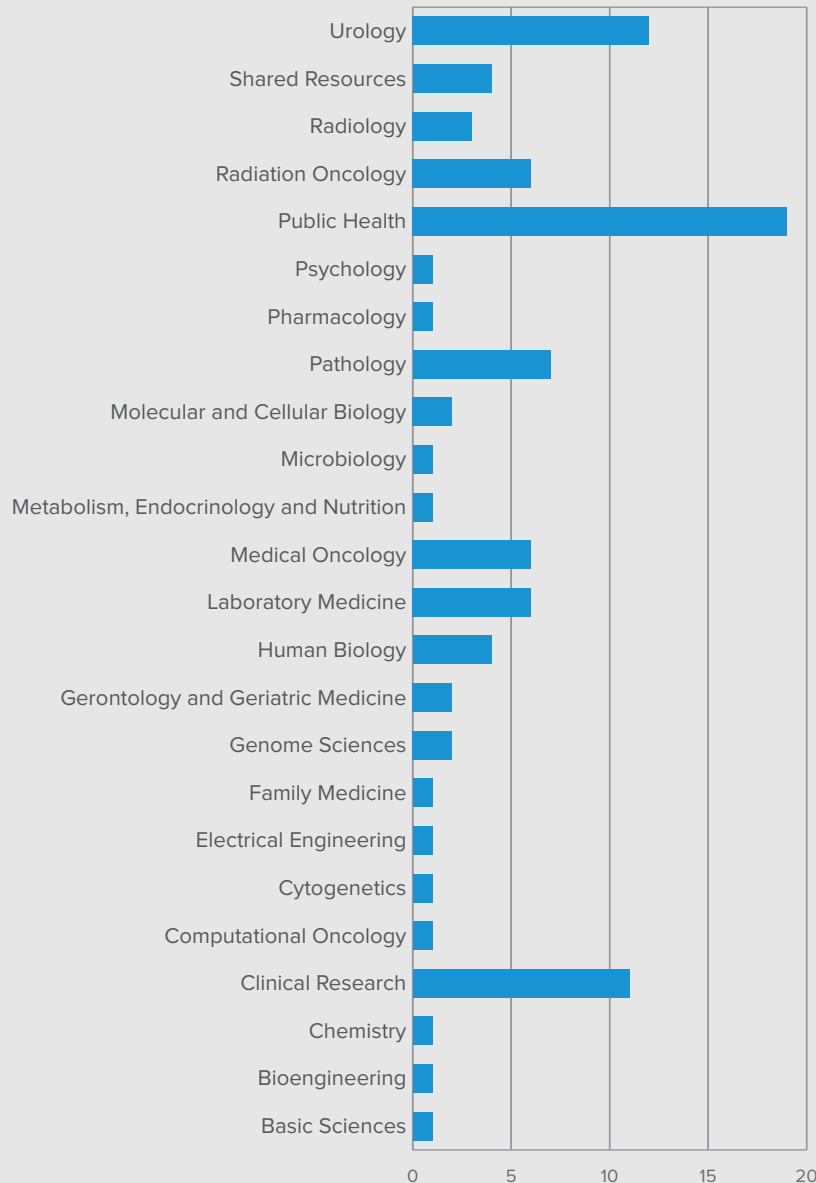
Clinical Trials

Based on 2013 Mid-Year Data Review

Clinical trials currently open, or closed to accrual with follow up or analysis ongoing; excludes minimal-risk studies.



Number of Prostate Tumor Faculty by Discipline



TOP FEATURES

- Highest survival rate in the nation for stage II, III and IV patients
- Top-ranked clinical science program grant (SPORE)
- StandUp2Cancer Dream Team Project (genomic sequencing for patients)
- PASS (Prostate Active Surveillance Study)
- Highest accrual site for first immunotherapy trial

PIONEERING PSA

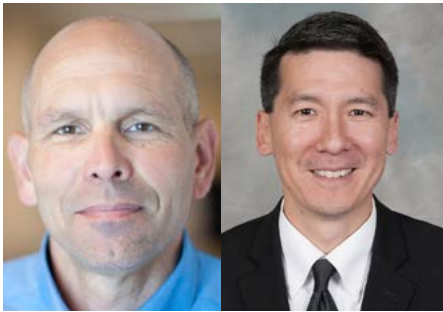
Drs. Robert Vessella, Paul Lange, and colleagues were integral to the implementation of the PSA screening test as standard of care. Their 1987 paper entitled "Prostatic specific antigen and prostatic acid phosphatase in monitoring and staging of patients with prostatic cancer" was instrumental in the FDA's decision to approve PSA testing for clinical use. Since then, our researchers have been on the cutting edge of prostate cancer research.

Patient Appointments:
855-557-0555

One in six men will be diagnosed with prostate cancer in their lifetime. It is the second most common cancer in men and accounts for a significant number of cancer deaths in the United States, claiming 30,000 lives each year. Our program brings together the expertise of interdisciplinary teams of international research leaders—all focused on understanding the causes of prostate cancer and preventing its progression to lengthen survival and improve quality of life.

“I still find myself returning to the center from time to time to talk with others. While my treatment has ended, the survivor community that I am now a part of is just beginning.”

Richard Braun (prostate cancer survivor)



Dr. Peter Nelson

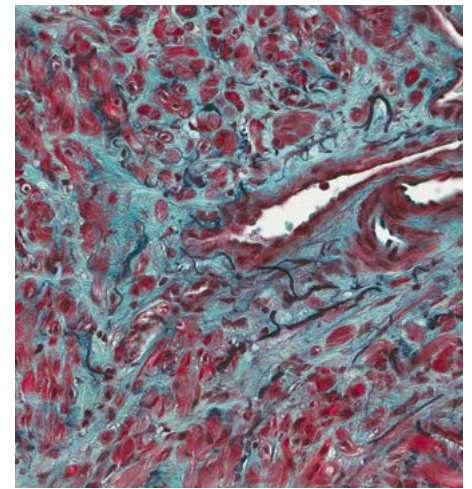
Dr. Dan Lin

PACIFIC NORTHWEST SPORE

Cancer researchers at Fred Hutch lead the Pacific Northwest Prostate Cancer Specialized Program of Research Excellence (SPORE), which is one of only eight Prostate Cancer SPOREs

across the nation. Originally awarded in 2002, this five-year grant has been competitively renewed twice, an accomplishment that underscores the innovative and groundbreaking progress achieved by this team.

The PNW Prostate Cancer SPORE includes partnerships with the UW, the University of British Columbia and its affiliate, the Vancouver Prostate Centre, and the Oregon Health and Science University Knight Cancer Institute. These diverse teams of clinicians and researchers bring the scientific depth, breadth, creativity, and vision necessary to address the morbidity and mortality currently associated with prostate cancer.



Movat stain on prostate cancer cells under the microscope at 20x magnification. Photo: Experimental Histopathology/Fred Hutch.



Dr. Robert Vessella

GENOMIC MEDICINE: TRANSFORMING CARE

The underlying genetics of a tumor are sometimes unique to each patient. Subsequently, the biology of one tumor may follow a more aggressive clinical course when compared to another tumor. If we have access to this information, we can anticipate how that tumor

will respond to various treatment regimens. In the clinical setting, our physicians can sequence a patient’s tumor and refer him for clinical trials of targeted therapies. Utilizing the existing biospecimen bank, our researchers have now sequenced 150 metastatic prostate tumors.

A WORLD-RENOWNED CANCER RESOURCE

Dr. Robert Vessella leads one of the largest tissue banks in the world—a repository storing serum, plasma, tissue and DNA samples from prostate cancer patients for research use. This library includes 33 “tumor avatars” of prostate cancer taken directly from patients. With this resource at hand, our scientists test novel therapeutics quickly and effectively. The tumor avatar library facilitates the discovery of drugs that target tumors based on their genetic profile rather than conventional clinical and pathologic parameters. To date, we have tested numerous drugs on these tumor avatars, some of which are currently being evaluated in the clinical environment. This resource also allows our investigators to determine if drug combinations demonstrate greater efficacy than a single drug in isolation, without actually exposing patients to ineffective or toxic therapies.

ACTIVE SURVEILLANCE: SAFER MANAGEMENT OF DISEASE

While prostate cancer is the most frequently diagnosed cancer in men in North America, not all prostate cancers are lethal. Some cases of prostate cancer grow so slowly that patients tend to die with the disease rather than from it. In these cases, conventional treatment for prostate cancer may cause more harm than good—i.e., therapy can impart undue quality-of-life challenges with little to no therapeutic gain. It is difficult to predict which cancers should be left untreated, but our researchers lead the Prostate Active Surveillance Study one of the largest and longest running efforts to identify biological markers that distinguish aggressive, lethal prostate cancers from those that are slow growing. This work will help reduce harm and health care costs for countless men down the road.

PROSTATE CANCER TRANSLATIONAL RESEARCH SPOTLIGHT

PREVENTION STUDIES

The Prostate Cancer Genetic Research Study (PROGRESS) led by Dr. Janet Stanford is a nationwide research project exploring why select families have an increased incidence of prostate cancer. It has enrolled over 300 families with multiple members diagnosed with prostate cancer, some at particularly early ages. Discovering the inherited genes for prostate cancer in families and how they work will provide new clues to help diagnose, treat, cure, and even prevent prostate cancer in future generations.

INSTITUTE FOR PROSTATE CANCER RESEARCH (IPCR)

IPCR, a collaborative effort of UW Medicine and Fred Hutch, is a natural outgrowth of established research and clinical collaborations. The IPCR brings together a world-renowned team whose mission is to understand the causes of prostate cancer and its progression, develop new prevention strategies, devise innovative diagnostics, and improve survival and quality of life.



IPCR focuses the efforts of 40 clinicians and researchers to find a cure for prostate cancer. Photo: UW Medicine.



Dr. Heather Cheng

MOLECULAR SEQUENCING

Dr. Heather Cheng studies new treatments for prostate and bladder cancer through clinical trials and how to sequence the new drugs to maximize therapeutic benefit for patients. She also studies blood-based cancer biomarkers, such as microRNAs, “which can hopefully predict

whether a person’s prostate cancer is likely to be more or less aggressive,” she says. Looking toward the future, Dr. Cheng hopes that in her lifetime, physicians will be able to use new molecular sequencing data to identify and cure more early-stage cancers.

CLINICAL TRIAL PROGRESS

Effectively combining new therapies holds promise for better patient outcomes. Our Cabazitaxel/enzalutamide combination trial shows huge survival benefit for chemohormonal combination. As a result, the prostate research group is collaborating with other institutions to further test these drugs and to ensure the best outcomes for patients with advanced and aggressive prostate cancer. Also, our clinicians are running the second-ever prostate cancer neuroendocrine trial. In addition, trials will begin utilizing SCCA’s brand new proton therapy center to examine the role of this therapy in safely reducing the length of treatment while maintaining excellent cure rates.

Using Analytics to Inform Strategic Plans: Our Metrics

STTR has compiled five-year historic metrics on faculty across the eight organ sites. Over 400 faculty members were identified, and data was gathered on their global collaborations, clinical trials, research grant funding, and publications. These metrics are being used to guide newly formed, multidisciplinary working groups in making decisions about future initiatives that will drive their translational science forward.

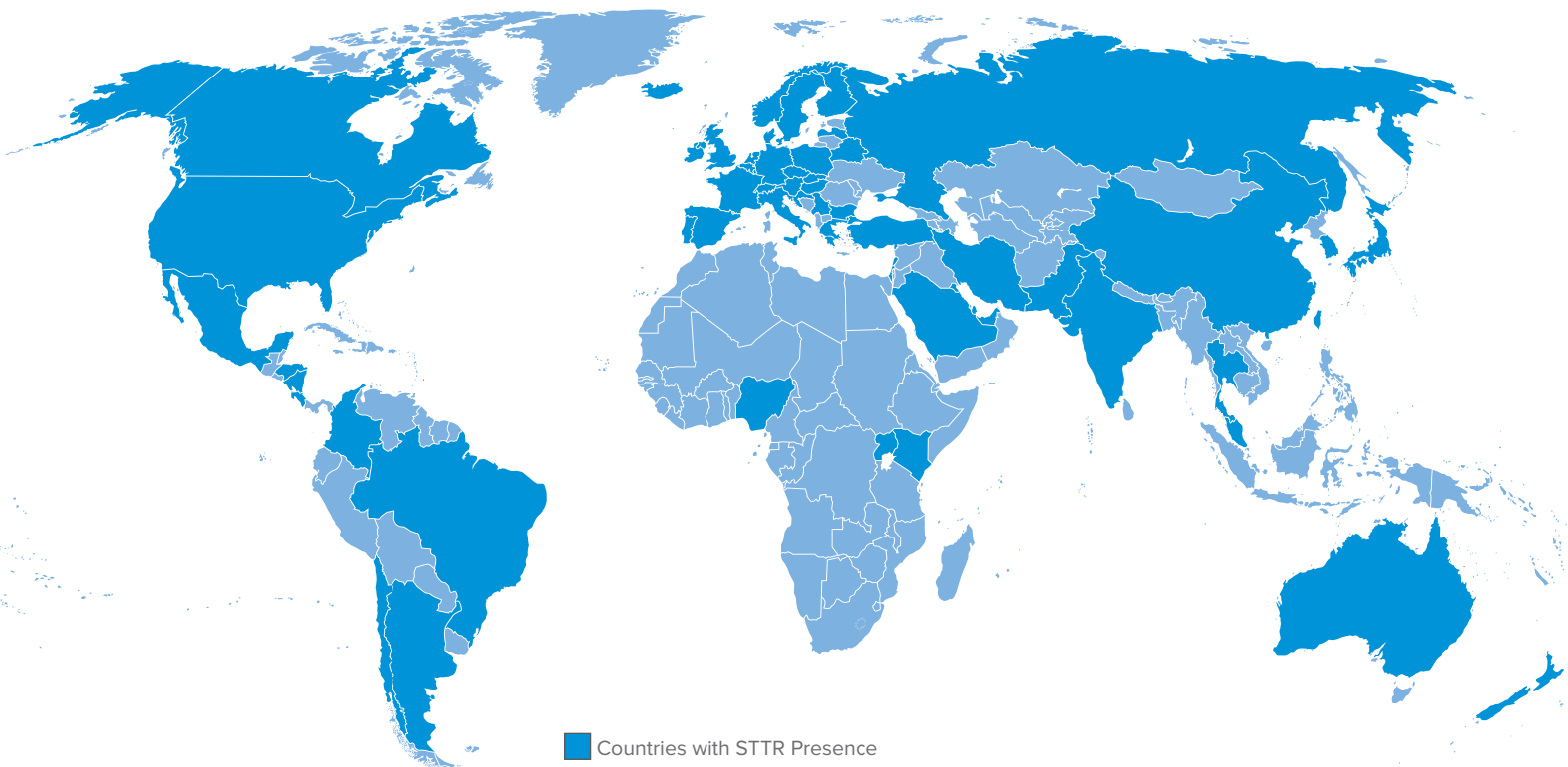
Global Presence

As the global burden of cancer is on the rise, our scientists and physicians are focused on the dissemination of collaborative ideas as evidenced by their effort over the past five years.

The map below reflects the global presence of STTR faculty by marking our national and international collaborations. STTR faculty have presented at conferences in over 650 locations, across 61 countries; published with investigators and clinicians at 603 institutions across 60 countries; and have grants with 42 partners nationally and two internationally.

Country List

Argentina	Finland	Kuwait	Saudi Arabia
Australia	France	Latvia	Serbia
Barbados	Germany	Lebanon	Singapore
Belarus	Greece	Malaysia	Slovenia
Belgium	Honduras	Mexico	South Korea
Brazil	Hungary	New Zealand	Spain
Bulgaria	Iceland	Nicaragua	Sweden
Canada	India	Nigeria	Switzerland
Chile	Ireland	Norway	Taiwan
China	Iran	Pakistan	Thailand
Colombia	Israel	Poland	The Netherlands
Costa Rica	Italy	Portugal	Turkey
Czech Republic	Japan	Qatar	Uganda
Denmark	Kenya	Russia	United Arab Emirates
			United Kingdom



2008-2013: Select Publications in High-Impact Journals

Our faculty have been extremely successful and have published several thousand journal articles. The following represent a selection of our publications in several high-impact journals.

Anderson BO, et al. Optimisation of breast cancer management in low-resource and middle-resource countries: executive summary of the Breast Health Global Initiative consensus, 2010. *Lancet Oncol.* 2011 Apr;12(4):387-98.

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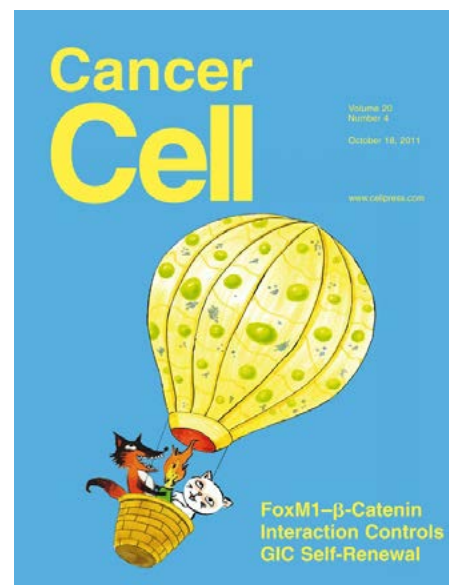
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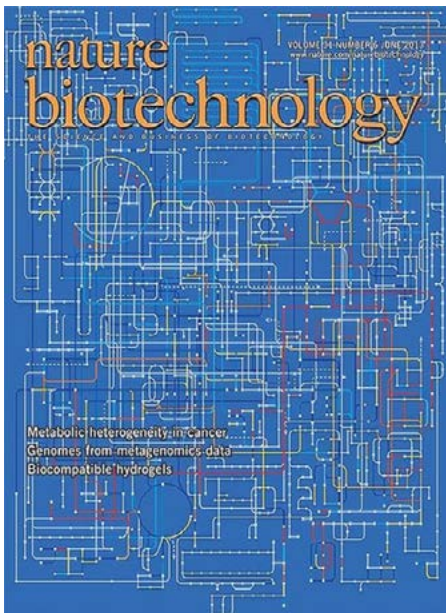
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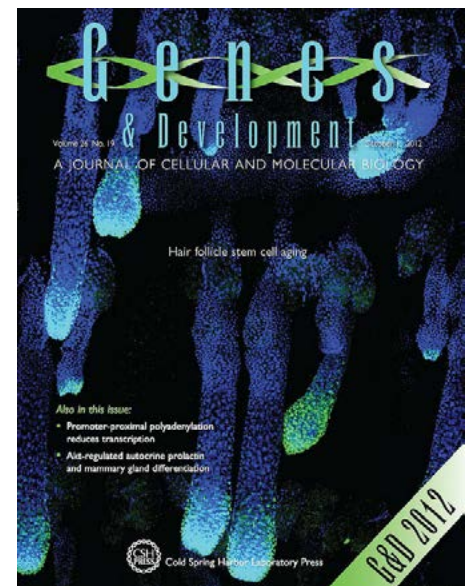
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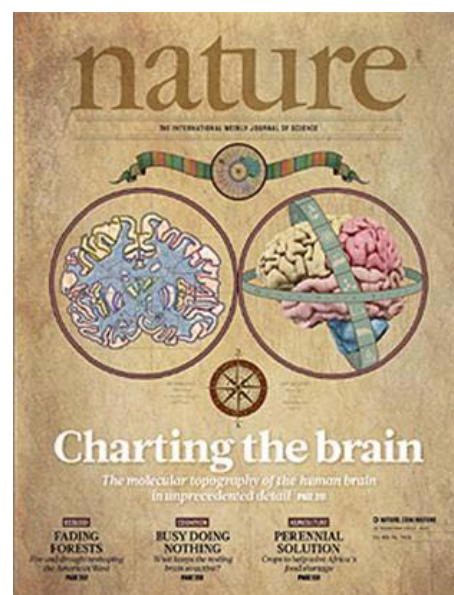
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Select Solid Tumor Clinical Trials

Below is a partial list of solid tumor clinical trials. A full list is available at <http://www.seattlecca.org/clinical-trials/clinical-trials.cfm>

Brain

CellDex Act-IV Vaccine Study for Newly Diagnosed Glioblastoma (UW11038)

An International, Randomized, Double-Blind, Controlled Study of Rindopepimut/GM-CSF with Adjuvant Temozolomide in Patients with Newly Diagnosed, Surgically Resected, EGFRvIII-Positive Glioblastoma
Investigator: Maciej Mrugala, MD, PhD

Glioma Imaging Study (7185)

Distinguishing Recurrent Glioma from Post-Radiation Change: Can Advanced MRI Techniques Predict Outcome?
Investigator: James Fink, MD

NW Avastin trial for Progressive or Recurrent Meningiomas (7329)

Phase II Trial of Bevacizumab (Avastin) in Patients with Recurrent or Progressive Meningiomas
Investigator: Marc Chamberlain, MD

Radiation Therapy with or without Temozolomide for Anaplastic Glioma (RTOG 0834)

Phase III Trial on Concurrent and Adjuvant Temozolomide Chemotherapy in Non-1P/19Q Deleted Anaplastic Glioma: The CATNON Intergroup Trial
Investigator: George Laramore, MD, PhD

Breast

Acupuncture vs. Sham Acupuncture for AI-induced Arthralgias (S1200)

Randomized Blinded Sham- and Waitlist-Controlled Trial of Acupuncture for Joint Symptoms Related to Aromatase Inhibitors in Women with Early Stage Breast Cancer
Investigator: Julie Gralow, MD

DCE-MRI and DWI for Detection and Diagnosis of Breast Cancer (9049)

ACRIN 6702: A Multi-center Study Evaluating the Utility of Diffusion Weighted Imaging for Detection and Diagnosis of Breast Cancer
Investigator: Savannah Partridge, PhD and Habib Rahbar, MD

Monitoring Patients with Triple Negative Breast Cancer (8132)

Intensive Trial of OMics in Cancer (ITOMIC) 001-Intensive Longitudinal Monitoring in Patients with Triple Negative Breast Cancer
Investigator: Tony Blau, MD

STAR Study (Screening Tomosynthesis and ABUS Research Study)

Automated Breast Ultrasound and Digital Breast Tomosynthesis Screening Compared to Full Field Digital Mammography in Women with Dense Breasts
Investigator: Constance Lehman, MD

Vaccine Therapy for HER2+ Stage IV Breast Cancer

Phase II Study to Evaluate the Development of HER2/neu (HER2)-Specific Memory T Cells after HER2 Peptide-Based Vaccination in Patients with Advanced Stage HER2+ Breast Cancer
Investigator: Lupe Salazar, MD

Colorectal

Capecitabine and Celecoxib w/wo Radiation Therapy for Colorectal Cancer Patients Previously Treated with Fluorouracil (ADAPT-7707)

A Phase II Trial of Maintenance ADAPT Therapy with Capecitabine and Celecoxib in Patients with Metastatic Colorectal Cancer
Investigator: Edward Lin, MD

Chemotherapy or Chemotherapy + Radiation for Rectal Cancer Patients Undergoing Surgery (The PROSPECT Trial)

A Phase II/III Trial of Neoadjuvant FOLFOX, with Selective Use of Combined Modality Chemoradiation versus Preoperative Combined Modality Chemoradiation for Locally Advanced Rectal Cancer Patients Undergoing Low Anterior Resection with Total Mesorectal Excision
Investigator: Gabriela Chiorean, MD

Molecular Markers for Colon Cancer Screening

Validation and Comparison of Biomarkers for the Early Detection of Colorectal Adenocarcinoma
Investigator: William M. Grady, MD

TheraSphere® Metastatic Colorectal Carcinoma of the Liver (7627-TS-102)

A Phase III Clinical Trial Evaluating TheraSphere® in Patients with Metastatic Colorectal Carcinoma of the Liver Who Have Failed First Line Chemotherapy
Investigator: William Harris, MD

Head and Neck

Induction Chemotherapy for Locally Advanced Squamous Cell Carcinoma of the Head and Neck (7797)

A Phase II Study of Carboplatin, Nabpaclitaxel and Cetuximab for Induction Chemotherapy for Locally Advanced Squamous Cell Carcinoma of the Head and Neck
Investigator: Renato Martins, MD, MPH

MPH Postoperative Radiation Therapy +/- Cetuximab for Head and Neck Cancer (RTOG 0920)

A Phase III Study of Postoperative Radiation Therapy (IMRT) +/- Cetuximab for Locally Advanced Resected Head and Neck Cancer
Investigator: George Laramore, MD, PhD

Recombinant Interleukin-15 in Treating Patients with Advanced Melanoma, Kidney Cancer, Non-Small Cell Lung Cancer, or Head and Neck Cancer

A Phase I Study of Recombinant Human IL15 (rhIL15) in Adults with Advanced Solid Tumors: Melanoma, Renal Cell, Non-Small Cell Lung and Head and Neck Cancer
Investigator: John Thompson, MD

VTX-2337 for Recurrent or Metastatic Squamous Cell Carcinomas of the Head and Neck (7406)

Phase I Clinical Trial of VTX-2337, a Small Molecule Toll-Like Receptor 8 (TLR8) Agonist in Combination with Cetuximab in Patients with Recurrent or Metastatic Squamous Cell Carcinomas of the Head and Neck (SCCHN)
Investigator: Laura Chow, MD

Lung

Alisertib (MLN8237) in Combination With Paclitaxel for Small Cell Lung Cancer

A Randomized, Double-blind, Placebo controlled, Phase II Clinical Trial of Alisertib (MLN8237) in Combination with Paclitaxel versus Placebo in Combination with Paclitaxel as Second Line Therapy for Small Cell Lung Cancer (SCLC).

Investigator: Christina Baik, MD, MPH

MEDI4736 (Anti PD-L1) w/ Gefitinib for Non-Small Cell Lung Cancer

A Phase I, Open-Label, Multicenter Study to Assess the Safety, Tolerability, Pharmacokinetics and Preliminary Antitumor Activity of Gefitinib in Combination with MEDI4736 (Anti PD-L1) in Subjects with Non-Small Cell Lung Cancer (NSCLC)

Investigator: Laura Chow, MD

Radiation Therapy + Cisplatin and Etoposide for Inoperable NSCLC (7506)

A Phase I Dose-Intensification Study Using Radiation Therapy and Concurrent Cisplatin and Etoposide for Patients with Inoperable Non-Small Cell Lung Cancer

Investigator: Shilpen Patel, MD

SPECT/CT in Measuring Lung Function in Patients with Lung Cancer Undergoing Radiation Therapy (8180)

Pulmonary Functional Imaging for Radiation Treatment Planning for Lung Cancer

Investigator: Jing Zeng, MD

Ovary

FDG PET for Advanced Ovarian Cancer (Fred Hutch-7009)

FDG PET and Biomarkers in Treatment Response in Advanced Ovarian Cancer

Investigator: Joseph Rajendran, MD

Memory and Thinking Skills Workshop in Improving Cognitive Rehabilitation in Ovarian Cancer Survivors (7750)

Behavioral and Neural Indices of Cognitive Rehabilitation in Ovarian Cancer: A Pilot Study

Investigator: Heidi Gray, MD

Novel Markers to Predict Malignancy in Elevated-Risk Women (Novel Markers Trial-6973)

A Randomized Controlled Trial Using Novel Markers to Predict Malignancy in Elevated-Risk Women (Novel Markers Trial)

Investigator: Nicole Urban, MS, ScD

Temsirolimus + Carboplatin/Paclitaxel Stage III-IV Clear Cell Carcinoma of the Ovary (GOG-0268)

A Phase II Evaluation of Temsirolimus (CCI- 779) (NCI Supplied Agent: NSC#683864, IND#61010) in Combination with Carboplatin and Paclitaxel Followed by Temsirolimus (CCI-779) Consolidation as First-Line Therapy in the Treatment of Stage III-IV Clear Cell Carcinoma of the Ovary

Investigator: Benjamin Greer, MD

Vaccine Therapy for Stage III-IV Ovarian Cancer (7396)

A Phase I Trial of the Safety and Immunogenicity of a DNA Plasmid Based Vaccine Encoding the Amino Acids 1-163 of Insulin-Like Growth Factor Binding Protein-2 (IGFBP-2) in Patients with Advanced Ovarian Cancer

Investigator: Mary Nora Disis, MD

Pancreas

FOLFIRINOX w/wo Hyperacute®-Pancreas Immunotherapy for Pancreatic Cancer (8028)

A Phase III Study Of FOLFIRINOX with or without Hyperacute®-Pancreas (algenpantucel-L) Immunotherapy in Subjects with Borderline Resectable or Locally Advanced Unresectable Pancreatic Cancer

Investigator: Andrew Covelev, MD

PEGPH20 with Nab-Paclitaxel Plus Gemcitabine for Stage IV Untreated Pancreatic Cancer

A Phase II, Randomized, Multicenter Study of PEGPH20 (PEGylated Recombinant Human Hyaluronidase) Combined with Nab-Paclitaxel Plus Gemcitabine Compared with Nab-Paclitaxel Plus Gemcitabine in Subjects with Stage IV Previously Untreated Pancreatic Cancer

Investigator: Sunil R. Hingorani, MD and William Harris, MD

PRi074 Cancer Stem Cell Therapy Gemcitabine and PRi074 in Previously Treated Metastatic Pancreatic Cancer

Phase Ib Multicenter, Cohort Dose Escalation Trial to Determine the Safety, Tolerance and Preliminary Antineoplastic Activity of Gemcitabine Administered in Combination with Continuous Intravenous Doses of PRI-724, a CBP/ β -Catenin Inhibitor, to Patients with Advanced or Metastatic Pancreatic Adenocarcinoma Eligible for Second-Line Therapy after Failing First-Line Therapy with FOLFIRINOX (or FOLFOX) Protocol PRI-724-102

Investigator: Gabriela Chiorean, MD

Prostate

ARN-509 for Relapsed Hormone Sensitive Prostate Cancer (20130917)

The Role of Highly Selective Androgen Receptor (AR) Targeted Therapy in Men with Biochemically Relapsed Hormone Sensitive Prostate Cancer

Investigator: Celestia Higano, MD

GTx-758 for Castration Resistant Prostate Cancer

Phase II, Open Label Study of the Effect of GTx-758 as Secondary Hormonal Therapy on Serum PSA and Serum Free Testosterone Levels in Men with Metastatic Castration Resistant Prostate Cancer Maintained on Androgen Deprivation Therapy

Investigator: Evan Yu, MD

MLN8237 for Metastatic Castrate Resistant and Neuroendocrine Prostate Cancer

A Phase II Trial of the Aurora Kinase A Inhibitor MLN8237 in Patients with Metastatic Castrate Resistant and Neuroendocrine Prostate Cancer

Investigator: R. Bruce Montgomery, MD

Radiation Therapy versus Androgen Deprivation

A Phase III Trial of Short Term Androgen Deprivation with Pelvic Lymph Node or Prostate Bed Only Radiotherapy (SPPORT) in Prostate Cancer Patients with a Rising PSA after Radical Prostatectomy (RTOG 0534)

Investigator: George Laramore, MD, PhD

SCORE (30824)

SCORE -- Assessment of Mood, Information Processing and Quality of Life in Prostate Cancer Survivors and Patients

Investigator: Monique Cherrier, PhD

Priorities for the Future



The People:

- › Expand STTR to more sites including bladder cancer faculty
- › Enhance the transition of newly recruited faculty into the Seattle community
- › Link established faculty into applicable solid tumor research teams
- › Encourage team science while maintaining individual discovery
- › Support faculty collaborative grant submissions

The Programs:

- › Advance the field by coupling clinical data with ever evolving genetic data by processing donated cancer tissue in biorepositories
- › Expand the HIDRA clinical database project and natural language processing beyond brain to other organ sites
- › Utilize high tech biotools to improve standard of care by speeding translation of laboratory and population research into the clinical environment—precision oncology in practice
- › Facilitate data sharing and collaboration among faculty through grant writing support, new forums for exchanging ideas and community-building tools
- › Foster collaboration rather than competition between Seattle biomedical institutions and cancer centers around the globe
- › Implement first STTR faculty retreat (2015)
- › Continue outreach to foundations and supporters



The Promise:

- › Support from the community—our best partners & advocates for curing cancer
- › Seek additional funding from:
 - › Philanthropy
 - › Foundations
 - › Government
- › Innovative, creative scientific, mathematical and/or computational ideas which will lead to breakthroughs in cancer prevention and care
- › Our patients and their families with whom we stand in solidarity
- › Funds to be raised for STTR at annual Hutch Holiday Gala (December, 2014), which will be used to support cutting-edge research and faculty recruitment

For tickets to the Hutch Holiday Gala please call (206) 667-6680.

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