

LINKING TOGETHER AGAINST CANCER



Cancer Research And Biostatistics
2021 Annual Report



CANCER RESEARCH AND BIOSTATISTICS

OUR VALUES

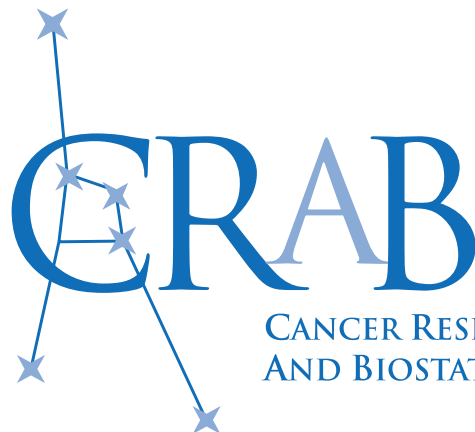
TEAM PLAYER

OPEN COMMUNICATION

POSITIVE ATTITUDE

INTEGRITY

COMPASSION



CANCER RESEARCH AND BIostatISTICS

OUR MISSION

is to help conquer cancer using the tools and expertise we bring to oncology clinical development:

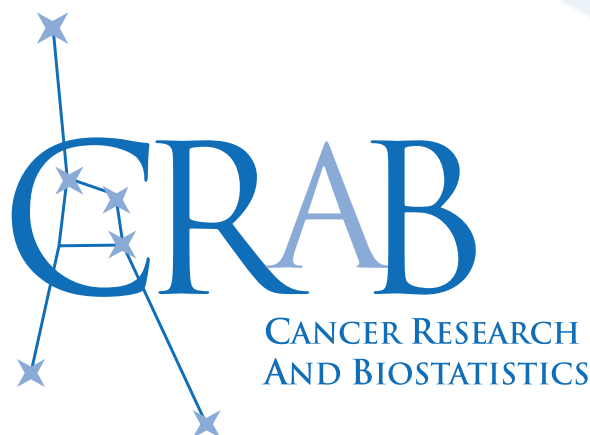
Biostatistical principles

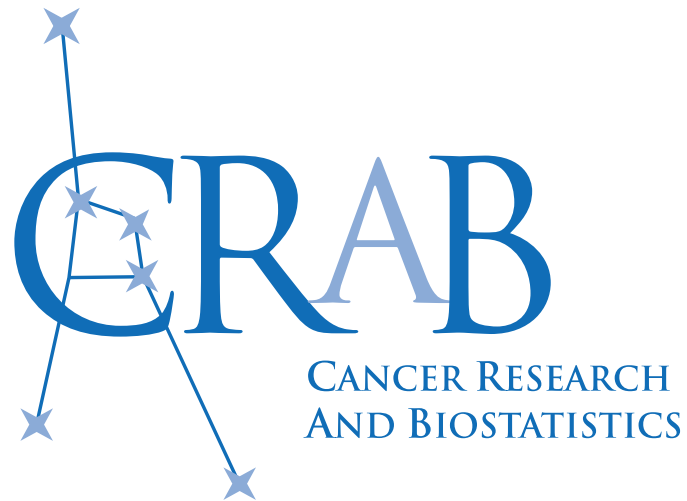
Oncology clinical trials expertise

Data management/monitoring services

Electronic data capture solutions

Education, support and training





Cancer Research And Biostatistics (CRAB) is a non-profit organization whose purpose is to help conquer cancer and other diseases through the application of biostatistical principles and innovative data management methods.

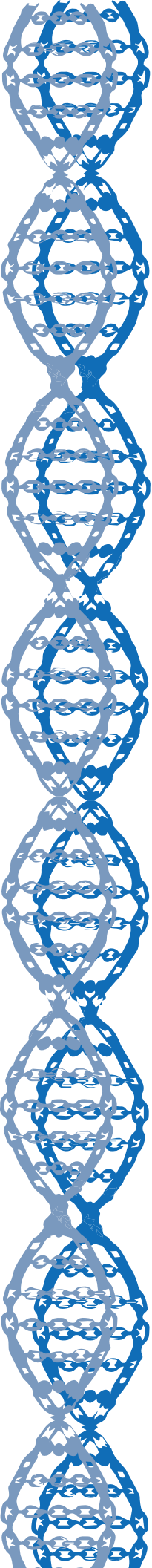


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MESSAGE FROM THE PRESIDENT



Antje Hoering, PhD

This year has been a year of continued challenges, opportunities and hope for all of us at CRAB, our Board of Directors, and our colleagues. The challenges related to COVID-19 improved when the first vaccines were given emergency use authorization by the FDA in December 2020. Following public health advice and our continued effort to keep employees safe, we continued to work primarily from home except for a few employees conducting essential work. Working with our Safely Opening CRAB Office (SOCO) Committee, we opened the office for voluntary return up to 20 people daily in July. We had hoped to have more people return in 2021, but deferred that until 2022 due to new COVID-19 variants. While having most of us working remotely since March 2020 has created challenges, I am very grateful that our employees continued to produce high-quality work.

We surveyed staff members this year regarding employee engagement and diversity, equity and inclusion. A local non-profit organization, Archbright, conducted the survey in October. Results were presented to all staff in November and to our Board of Directors in December. In 2022, we plan to work with our High-Level Management Team and Diversity Equity and Inclusion Committee to identify opportunities for improvement and to establish action plans to address employee needs and concerns.

Our theme for this year, “Linking Together Against Cancer,” highlights our work with many dedicated groups and individuals who are crucial in improving treatment and identifying cures for the many varieties of cancer. CRAB is proud to have been a member of the Statistics and Data Management Center, co-located at Fred Hutch and CRAB, of the SWOG Cancer Research Network for more than 20 years. One exciting project this year is done in collaboration with nCoup using their nCartes platform which can connect to healthcare facility databases to automate the collection of patient data, which is then automatically passed to the SWOG data base. By automating the data collection, SWOG hopes to save time and effort for research personnel.

We are excited that CRAB was chosen to continue our collaboration with Friends of Cancer Research (*Friends*) as the Independent Analysis Center for ctMoniTR, planning and developing the next phase of research. This project’s ultimate goal is to assess whether changes in circulating tumor DNA are correlated to clinical outcome – this knowledge could inform treatment decisions guided by these less invasive tests. Step 2 of the ctMoniTR project builds on Step 1, expanding our original work to more disease settings and different therapeutic interventions to determine whether our results can be generalized. Step 2 also expands the scope including more trials from more Sponsors. It has been a pleasure to work with *Friends* and all of the collaborators.

CRAB continued its long-standing collaboration with the International Association for the Study of Lung Cancer (IASLC) and the Staging and Prognostic Factors Committee (SPFC) through work on the next (ninth) edition of the Tumor, Node, Metastasis (TNM) classification system. Data from around the world related to lung cancer, mesothelioma, and thymic malignancies diagnosed from 2011-2019 have been collected through our own CRAB Nebula™ electronic data capture system and submission of batch datasets. Early in 2021, CRAB statisticians presented the data in multiple virtual subcommittee meetings. Data collection and submission for the Lung and Thymic malignancies closed in late 2021, and work is currently underway to begin analyzing the results in preparation for the submission of the Ninth Edition TNM Staging Criteria, to be submitted for review and adoption by the UICC/AJCC in 2024.

We are excited to have been awarded an R01 grant from the U.S. National Cancer Institute in collaboration with investigators at the Perlmutter Cancer Center at New York University Langone Health. The goal of this five-year project is to determine whether the racial differences in disease progression from Smoldering Myeloma to symptomatic Myeloma are due to genetics or environmental causes. CRAB started building the database for the multi-center clinical trial in our CRAB Nebula system.

We look forward to the opportunities 2022 will bring with the hope of the return of normalcy, as we continue linking together against cancer.



SWOG Cancer Research Network

SWOG hosts virtual workshops at Group Meetings

SWOG Cancer Research Network held their annual meetings in the Spring and Fall of 2021. Due to the COVID-19 pandemic, both meetings were once again held virtually. For the first time, the SWOG Clinical Trials Training Course was set in a virtual setting with remote presenters and the afternoon Practicum Session split participants up into 10 breakout rooms facilitated by a CRAB Data Coordinator. The course was successful and well received with 240 in attendance. Leveraging the video conference platform during the Fall meeting, CRAB staff led the seventh annual NCI Community Oncology Research Program (NCORP) workshop, where investigators and clinical research professionals develop skills necessary to conduct research in the areas of cancer survivorship, palliative and end of life care, prevention and epidemiology, symptom control and quality of life and cancer care delivery.

These workshops were made possible by the generous funding from The Hope Foundation for Cancer Research, a public charity with the mission of raising and contributing funds for the treatment and prevention of cancer that partners with SWOG.

Recruitment & Retention Committee addresses diversity, equity & inclusion in SWOG trials

The SWOG Recruitment and Retention Committee (RRC) advises on methods to increase patient accrual to SWOG trials, focusing particularly on including underrepresented patients. CRAB's Jennifer Maeser, Clinical Trial Recruitment and Retention Specialist, and Monica Yee, Data Management Program Director, provide support and guidance to the RRC committee. The RRC developed a new "TAKE ACTION" series of educational symposiums to convene panels of experts to share information about underrepresented populations. The sessions are held for investigators, research professionals and all audiences during the SWOG semi-annual Group Meetings.

Objectives of the symposiums are to identify evidence-based practical strategies clinical sites can use to ensure access and equity in SWOG clinical trials, address cultural values of specific populations that support building trust, reflect the current environment a specific population is being challenged with that impacts trial participation, and to recommend metrics for tracking success. In 2021, "Ensuring Health Equity in SWOG Clinical Trials Among African Americans" and "Disparities in Cancer Care and the Asian American Population" were presented.

The RRC also participates and advises in a variety of other initiatives such as the SWOG DEI Champion program and other diversity and inclusion activities across SWOG that encompass leadership, membership and clinical trial participation.

SWOG Latin America Initiative gains momentum

The SWOG Latin America Initiative (SLAI) continued to promote its unique interaction with oncology professionals in Mexico, Colombia, Peru, Chile, Uruguay and Brazil.

In April 2021, the initiative held a virtual conference – which was hosted by the National Cancer Institute of Mexico (Instituto Nacional de Cancerología) and the Mexican Society of Oncology (Sociedad Mexicana de Oncología). The conference was supported by a grant from The Hope Foundation for Cancer Research and from the US National Cancer Institute’s Center for Global Health.

The event was well attended, with participants and presenters from across the US and Latin America, and included simultaneous translation. The conference moderator was CRAB employee Dacia Christin and presenters included CRAB’s John Crowley, Antje Hoering and Rachael Sexton. To facilitate the broadest participation possible, the conference spanned the late afternoon of four days, with a fifth day for break-out sessions where in-depth discussion on potential research projects and associated methods occurred.



From the program evaluation data collected after the conference it was clear the participants saw the content and interaction as facilitating research and advancing their personal careers. In addition to the conference, the sites in Latin America are now enrolling an increasing number of participants in SWOG cancer trials.

New Lung-MAP Sub-studies for SWOG Central Monitoring

The CRAB Central Monitoring team continued to monitor four SWOG registration trials – S1418 (Breast Cancer); S1806 (Bladder Cancer); Lung-MAP, S1914 (Lung Cancers). For these studies, the participating institutions upload their patient data using the remote source document portal (SDP) of the Cancer Trials Support Unit (CTSU), a service of the National Cancer Institute and iMedidata RAVE’s electronic data capture platform. Central monitors proactively compare specified source documents submitted in the SDP to the completed eCRF in RAVE to confirm the accuracy of the eCRF data in iMedidata Rave, identify and resolve barriers to data quality, and communicate with institutions to correct gaps that may impact patient safety and data integrity. The SWOG protocol development has added a new LungMAP Sub-study protocol, S1800D which will be implemented in June 2022 and will be monitored by the CRAB Central Monitors.

The poster for the CREDIT: Financial Navigation Study has a blue and white design. The title "CREDIT: Financial Navigation Study" is in large, bold, white letters on a blue background. Below the title, the text reads: "a study to help cancer patients and their spouses understand and navigate the costs of cancer care." Further down, it states: "This study will determine whether providing financial education, counseling, and financial assistance resources to cancer patients and their spouse caregivers will help to lessen the financial burden of treatment." At the bottom, there are logos for SWOG (Cancer Research Network), NCI National Clinical Trials Network, and NCI Community Oncology Research Program.

2021 SWOG clinical trial activity

The SWOG Cancer Research Network opened 10 new studies in 2021, developed in a collaborative effort by CRAB’s Application Development and Data Management teams. The studies included Early Therapeutics (S2012); Gastrointestinal (S2104); Genitourinary (S1937, S2011); Lung (S1934, S1900E); Lymphoma (S1918); Myeloma (S2005); Cancer Care Delivery (S1912CD) and Symptom Control/QOL (S2013).

In addition, the team began development of web forms for 10 additional studies expected to be opened in 2022: ComboMATCH (EAY191-S3); iMATCH (S2101); Gastrointestinal (S2107); Genitourinary (S2200); Lung (S1900F); Lymphoma (S2114); Melanoma (S2015); MyeloMATCH (MM1YA-S01, MYELOMATCH) and Cancer Care Delivery (S2108CD). Once a study is opened, cancer care facilities may enroll eligible patients.

GENERATING BUZZ

Data Monitoring Committee Services launched

CRAB proudly offers Data Monitoring Committee (DMC), also known as Data Safety Monitoring Board (DSMB) Services to monitor patients' safety and therapeutic efficacy of oncology clinical trials. While we have had these services for many years when working with clients on other projects, we now offer them as a stand-alone service. The suite of services includes both statistical and operational support. Statistical support includes running the Independent Statistical Center (ISC) to provide analysis and reports for DMC/DSMB members to support timely decision-making. The ISC will be responsible for creating or reviewing the charter, programming tables, listings and figures, analyzing data, and preparing reports for DMC/DSMB members. Operational support includes seasoned project managers to coordinate and schedule all DMC meetings, prepare and finalize meeting minutes and notes adhering to the charter, managing timesheets and payments, and interfacing between the ISC, DMC and Sponsor.

CRAB presents at LSINW conference

CRAB attended and presented at the virtual Life Science Innovation Northwest (LSINW) in late March, 2021. LSINW is the largest life science conference in the Pacific Northwest and brings together life science organization, research institutes, scientists, entrepreneurs, investors, and the local life science community to network and learn together. Although the conference was virtual, it had the highest attendance in history, with over 1,000 participants. CRAB presented to the almost 200 people who attended the Biotechnology track presentations. Here, audience members learned about CRAB's new Data Monitoring Committee (DMC) Services, including statistical and operational support. CRAB is grateful to be a member of Life Science Washington and the greater life science community in general.

CRAB CEO mentors fellows at hematology clinical research training workshop

For the fifth-consecutive year, CRAB President and CEO Antje Hoering, PhD, was invited to serve on the faculty for the American Society of Hematology's (ASH) Clinical Research Training Institute (CRTI). The training is a year-long education and mentoring program for fellows and junior faculty specializing in hematology. CRTI faculty provide individualized education and mentoring on clinical research methods, research collaborations, statistical analysis and career advancement.

"I feel honored to have been included in the faculty line-up," said Dr. Hoering. "I have enjoyed working with these bright early-career Hematologists to help them get their research and career kick-started. I always learn a lot from them."

CRAB CEO presents at the Knight 5th Cancer Clinical Trials Methods and Training Workshop

For the fifth-consecutive year, CRAB President and CEO was invited to present at this workshop, this year virtually. The title of her talk was "Study Design Considerations for Precision Oncology." This workshop always draws a crowd from various departments at the Knight, including Biostatisticians, Oncologists and other clinical personnel.

COLLABORATIONS

CRAB and Friends of Cancer Research kick off ctMoniTR Step 2

CRAB has served as the Independent Analysis Center led by Friends of Cancer Research (Friends) for the “ctDNA for Monitoring Treatment Response” (ctMoniTR) project since 2019. For the Step 1 pilot project, CRAB harmonized data from five studies and executed statistical analyses to assess if changes in circulating tumor DNA (ctDNA) could be an early indicator of a patient’s response to treatment with PD-L1 Immune Checkpoint Inhibitors. The results were very promising and were presented in a conference and a manuscript has been submitted. We are proud that *Friends* selected CRAB for step 2 of this project. CRAB has continued to work with *Friends* to plan and develop the next phase of research. Step 2 of the ctMoniTR project will build on the results from Step 1, with the goal to conform the results in different treatments, different ctDNA assays, and different cancers.

CRAB provides DSMB management solutions to Concinnity

In 2021, CRAB partnered with the Concinnity Company to provide pharmaceutical and biotech companies a comprehensive Data Safety Monitoring Board (DSMB) management solution. In this partnership, CRAB manages the operational and statistical elements of the DSMB, also known as a Data Monitoring Committee (DMC). To facilitate operational management, we utilize Cloud Concinnity, a secure, online platform which digitally manages meetings and documents. A pilot of the platform was initiated to support a DSMB which monitors a phase II/III Non-Squamous Non-Small Cell Lung Cancer therapeutic drug candidate. The DSMB members meet bi-annually using the Cloud Concinnity platform to review the blinded and unblinded reports, analyzed and published by CRAB biostatisticians. CRAB is excited to share the efficiencies gained through the use of the Concinnity platform.

CRAB provides statistical support for Veterans Affairs

In August 2021, CRAB entered a collaboration with the Portland Veterans Health Administration (VA) site to provide statistical support for a new clinical trials consortium called PATCH. PATCH stands for Prostate cancer Analysis for Therapy Choice, which focuses on prostate trials for approximately 10,000 veterans with prostate cancer. PATCH was developed by the VA and Prostate Cancer Foundation, through a collaboration called POPCaP, Precision Oncology Program for Cancer of the Prostate. CRAB will provide support to multiple trials and investigators simultaneously in the development of meaningful endpoints for research, calculations of power and sample size, creation of statistical analysis plans, advisement on case report forms and data capture systems, determination of interim and final analysis and assistance in any letters of intent, abstracts or presentations that arise from these studies. CRAB will also support the LPOP initiative which is the Lung Precision Oncology Program. We are excited to conduct this important work with the VA, POPCaP and LPOP to ease the cancer burden on our countries veterans.





CRAB continues long-standing collaboration with IASLC

CRAB continued its long-standing collaboration with the International Association for the Study of Lung Cancer (IASLC) and the Staging and Prognostic Factors Committee (SPFC) through work on the next (ninth) edition of the Tumor, Node, Metastasis (TNM) classification system. The CRAB effort is led by statisticians with support from our applications development, information technology, project management and data management teams. Case data on lung cancer, mesothelioma, and thymic malignancies diagnosed from 2011-2019 have been collected internationally through our own CRAB Nebula™ electronic data capture program to ensure that data are contributed using a standardized format.



INTERNATIONAL
ASSOCIATION
FOR THE STUDY
OF LUNG CANCER
Conquering Thoracic Cancers Worldwide

Early in 2021, CRAB statisticians presented in multiple virtual subcommittee meetings in lieu of attending the originally planned in-person conference in Singapore. Data collection and submission for the Lung and Thymic malignancies closed in late 2021, with Dori Giroux, Vanessa Cilento, Adam Rosenthal, Daniel Dibaba, and Katie Nishimura working to clean and harmonize data for the largest IASLC database to date. The Mesothelioma database continues to collect data through spring 2022. Three IASLC publications were submitted and are under revision, and work is currently underway to begin analyzing the results in preparation of the 9th Edition TNM Staging Criteria, to be submitted for review and adoption by the UICC/AJCC in 2024.



PCRT closes investigator-sponsored PCRT 16-001 trial

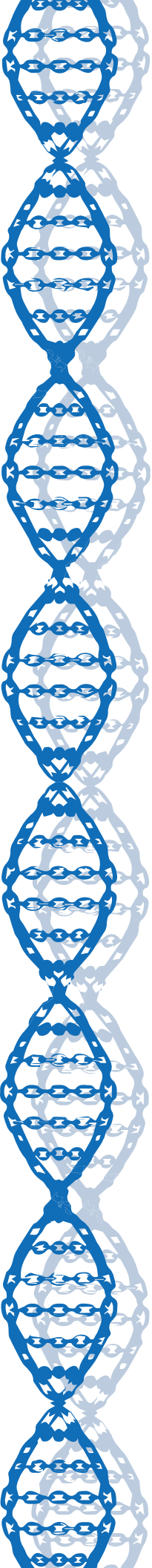
As a recent peer-reviewed publication indicated, “Survival rates for pancreatic cancer (PC) remain dismal.” In an attempt to determine a better course of treatment, in 2019 the Pancreatic Cancer Research Team, administered by CRAB, began a Phase 2 study examining the combined use of a drug in development by Halozyme™ called PEGPH20 and a drug marketed by Merck™ called Pembrolizumab. The study population included those patients with previously treated metastatic pancreatic ductal adenocarcinoma who had a high marker of hyaluronan, a compound produced by the pancreatic tumor. While the study was designed to examine the course of treatment of 35 patients, the investigation had to be terminated early due to another Phase 3 trial using PEGPH20 demonstrating no beneficial effect. The PCRT therefore closed our study. The preliminary results will be presented in 2022.



PCRT facilitates 18th Annual Meeting

In September, the Pancreatic Cancer Research Team (PCRT) held its annual meeting in a virtual format. The administration of the PCRT is managed by CRAB. The PCRT’s mission is to organize and accelerate the clinical development of new agents for the treatment of patients with pancreatic cancer. Presenters and participants were welcomed by Antje Hoering, PhD, CRAB’s President and Chief Executive Officer and PCRT Chair, Gabriela Chiorean, MD, Clinical Director of the Gastrointestinal Medical Oncology Program Seattle Cancer Care Alliance and Professor of Medicine at the University of Washington. PCRT Vice Chair Erkut Borazanci, MD of HonorHealth in Scottsdale, Arizona introduced speakers from industry who spoke to the participants about novel developments in treating pancreatic cancer. The key note address was given by Ramesh Ramanathan, M.D., Executive Medical Director, Global Center for Scientific Affairs, Merck Research Labs. The address was entitled “Have we made progress with Immuno-Oncology in treating pancreatic cancer?”

OUR EMPLOYEES



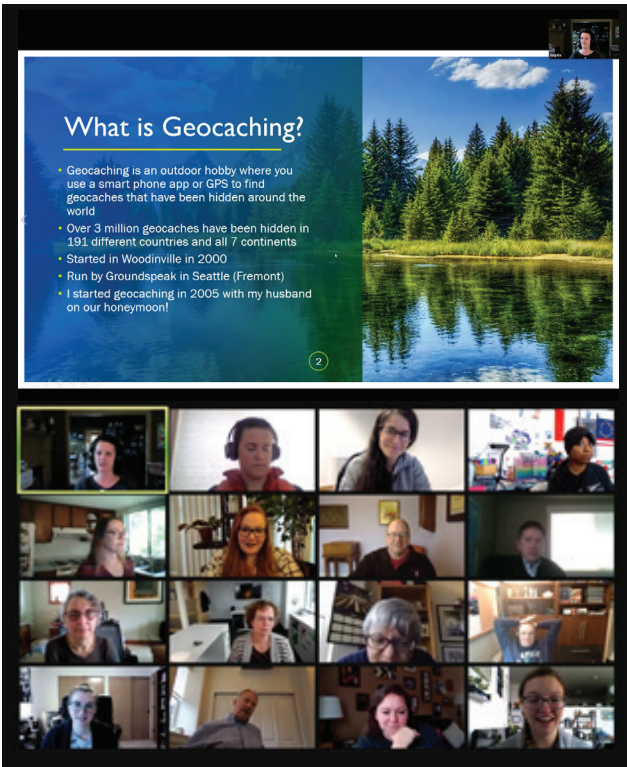
Matt Scott awarded the 2021 Cay Crowley Award for Excellence

CRAB Project Specialist Matt Scott was awarded the 2021 Cay Crowley Award for Excellence. CRAB President and CEO Antje Hoering, PhD, presented the award to Mr. Scott at CRAB's All Staff meeting in January 2021. Dr. Hoering cited several examples of Mr. Scott's key contributions to CRAB, including his success in taking on the role of project manager for the IASLC and ctMoniTR efforts, on top of his regular programming tasks. Mr. Scott was extolled for his commitment to building and maintaining strong internal and external communication these projects, for serving as a strong team player who has excelled in anticipating the needs of the project teams, for being highly proactive and thoughtful in his actions, initiatives, and communications. The Cay Crowley Award for Excellence was named after CRAB's co-founder and former president and Chief Financial Officer, Cay Crowley, PhD. Previous winners are Dr. Crowley (2015), Yoko Rivers (2016), Karen Anderson (2017), Laura Kingsbury (2018), Brent Watkins (2019), and Dani Weatherbee (2020).

CRAB launches DEI Committee

In 2021, CRAB instituted an internal Diversity, Equity, and Inclusion (DEI) Committee to help steer equity and inclusion at the institutional level. Following a company-wide DEI 101 workshop, facilitated by The ReadySet, CRAB officially invited staff to apply for committee membership. Tonya Johnson and Dani Weatherbee took on the role as co-chairs and drove the creation of the committee's first charter with guidance from CRAB executive leadership. The objective of the DEI Committee is to further CRAB's mission by fostering diversity, equity, and inclusion within CRAB as an organization and support the healthcare industry at-large, as well as in the local community. The DEI Committee works to integrate best practices for diversity, equity, and inclusion into organization policies and programs and serves as an advisory body to CRAB Management and other CRAB Committees. The Committee will provide research, recommendations, event support, and policy guidance as requested and as outlined in the CRAB DEI Committee annual goals.





Lunch & Learn Committee highlights CRAB employees' personal passions and projects

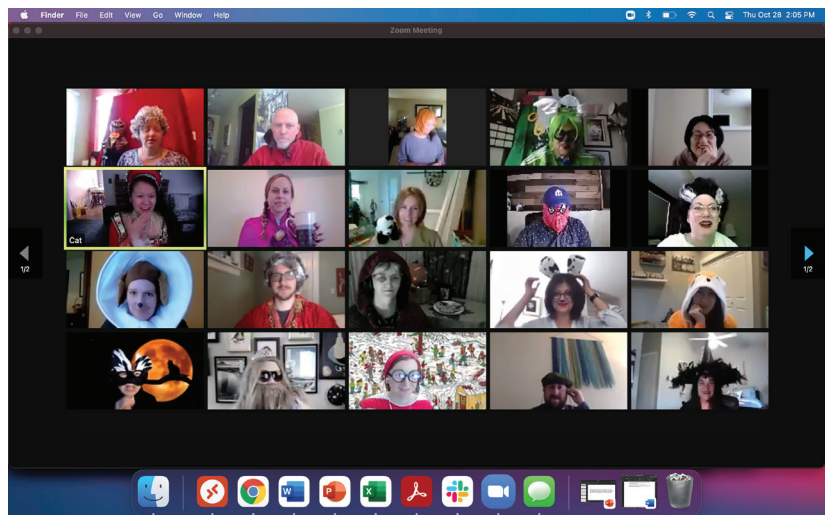
CRAB's Lunch & Learn Committee generally invites external speakers to present information relevant to CRAB's mission (for example, cancer survivorship and advocacy, the global burden of cancer, clinical trials) or on topics examining current healthcare challenges. In 2021 the committee opted to explore fellow CRABbies' personal interests. Four individuals from our administrative services team, our data management team, our applications develop team and our information technology team discussed their interests in the area of coffee cultivation and brewing, geocaching, sailing and the epidemiology of the Ten Plagues of Egypt as described in the Book of Exodus. These events really create a shared appreciation for the diversity of interests of our fellow employees!

CRAB continues remote work model throughout 2021

Throughout 2021, CRAB staff continued a majority work-from-home operation in response to the SARS-CoV-2 (COVID-19) pandemic. A small number of essential staffs, including administration, finance, human resources, and IT, were permitted onsite to assure necessary functions remained operational. In September, all staff were invited to return to the office at a limited capacity. CRAB leadership looks forward to more in-person collaboration when safe to and appropriate to proceed.

CRAB Staff Appreciation Committee lifts spirits during remote work

CRAB's Staff Appreciation Committee (SAC) has a long-standing reputation of elevating and valuing staff. The committee's mission is to acknowledge the accomplishments of teams and individuals as well as to boost morale by showing appreciation for our employees. In 2021, SAC held two activities. The first event was a "Trivia Extravaganza" where biostatistician Adam Rosenthal led us in a rousing game to test our knowledge of information both arcane and extraordinary. Later, despite the pandemic, we held our annual Halloween party, where we played games and held a competition for the best costume. We are fortunate to have an active committee prior to the beginning of the pandemic so that we could continue connecting despite the circumstances keeping us apart.



...a competition for the best costume. We are fortunate to have an active committee prior to the beginning of the pandemic so that we could continue connecting despite the circumstances keeping us apart.

COMMUNITY CONNECTIONS

CRAB CARES facilitates awareness-raising campaigns for Black History Month, Womxn/Women's History Month and Juneteenth



Due to the pandemic, the CRAB Cares committee used 2021 to focused efforts on learning more about our community in order to better-serve our neighbors when in-person activities reconvened. In February, CRAB Cares honored Black History Month by broadcasting a company-wide awareness raising campaign, hosting a book club, and spotlighting local Black-owned businesses. As part of the campaign, the CRAB intranet showcased many prominent Black and African American figures, inventions, and businesses that have improved the lives of many. The CRAB-wide book club met on Zoom each week throughout February to discuss learnings from the So You Want To Talk About Race New York Times bestselling book, authored by Seattle local, Ijeoma Oluo.

In March, to honor of Womxn/Women's History Month and International Women's Day, CRAB Cares extended reverence to all the womxn/women/girls at CRAB and to the womxn/women/girls around the world who have lent their shoulders for everyone to stand on. To pay tribute to the legacies of some trailblazers, CRAB Cares hosted a watch party and post-screening discussion for The Glorias biographical film. CRAB Cares also implemented a March Madness bracket for the NCAA Tournament to honor and appreciate the players of 2021.

Throughout June and July, CRAB Cares honored and recognized Juneteenth by sending educational materials to all CRAB staff from King County Equity Now, Kent State University, National Museum of African American History & Culture, New York Times, and Juneteenth.com and by hosting a 1619 Project podcast club. The podcast club invited CRAB staff, family, and friends to listen to the 1619 Project podcast and review other 1619 Project materials from Nikole Hannah-Jones and the New York Times. Participants met on Zoom for five weeks to share their learnings and discuss substantive and sustainable action inside and outside of the workplace.

CRAB Cares raises funds for lung health

In June, CRAB Cares joined Lung Force to walk in support of lung cancer research and advocacy. Contributions from members and supporters put the CRAB Cares team in fifth place for all participating companies. The team was led by CRAB's Clinical SAS Programmer, Julie Fox, and raised \$3,904 to support lung cancer research, patient care and public policy and advocacy.



CRAB partners with Technology Access Foundation

In July, CRAB Cares mobilized and coordinated CRAB's Alliance Membership with the Technology Access Foundation (TAF). TAF is a Seattle-based nonprofit leader redefining K-12 public education throughout Washington State for all students and teachers, particularly those who identify as a person of color and are from traditionally underserved communities (<https://techaccess.org/about/>). The alliance membership ensures CRAB is at the table when TAF considers volunteer opportunities and it opens doors for prospective TAF interns at CRAB. CRAB Cares believes this partnership will enable opportunities for CRAB, TAF, the education sector, and Seattle's greater community. We look forward to growing this partnership throughout 2022 and well into the future.



In August, CRAB Cares hosted an event to fundraise for CRAB's alliance with TAF. The event took place in a private T-Mobile Park suite at the Seattle Mariners versus Toronto Blue Jays ballgame. TAF staff, CRAB board members, staff, family, and friends joined the fundraiser or donated to help raise enough funds to secure the CRAB-TAF alliance membership for the next few years. CRAB Cares extends a special thank you to Cay and John Crowley for sponsoring this fundraising event.



LEADERSHIP & GOVERNANCE

CRAB Board of Directors appoint Dr. Antje Hoering as Board Chair

Co-founder Dr. John Crowley passes role to Dr. Hoering



At the annual meeting in June, the CRAB Board of Directors unanimously voted for Antje to be Chair of the CRAB Board of Directors, taking on the role from co-founder John Crowley, PhD.

John and Catherine (Cay) Crowley, PhD, established CRAB as a not-for-profit corporation in 1997. Under the Crowleys' leadership, CRAB was founded to support the SWOG Statistics and Data Management Center (SDMC), which was solely housed at the Fred Hutch prior to 1997. CRAB's operating costs as an independent research institute allowed us to maintain all our employees despite a funding downturn. In 2002, SWOG Data Operations staff, server room and other IT infrastructure moved from Fred Hutch to CRAB. The SWOG SDMC is now co-located at CRAB and Fred Hutch. John served as Director, and Group Statistician, of the SWOG Statistical Center from 1984 to 2012 when Mike LeBlanc, PhD, at Fred Hutch took on those roles.

There are too many accomplishments of John's to name them all. Some highlights include:

CRAB established the Selenium and Vitamin E Cancer Prevention Trial (SELECT) study on the prevention of prostate cancer in 2000. A year later, CRAB became the Statistical Center for the University of Arkansas Myeloma Institute for Research and Therapy. In 2002, CRAB began working with the International Association for the Study of Lung Cancer to establish a new international lung cancer staging system. CRAB statisticians have remained in that role and are now working on the 9th Edition of the clinical staging tool.

CRAB established our Clinical Research Services department in 2005 to diversify our client base through conduct of non-federally supported clinical trials by which CRAB provides data management and statistical support to the Pancreatic Cancer Research Team. As part of this effort, CRAB established compliance with U.S. Food and Drug Administration regulations (21 CFR Part 11), which has contributed to our value to the SWOG network as their studies evolve.

CRAB assisted SWOG in 2006 to develop a study that examined *Helicobacter pylori*, a bacterium known to cause peptic ulcers and the primary cause of gastric cancer for those living in Mexico and Central and South America. The commitment by CRAB and SWOG to that region has continued under the SWOG Latin American Initiative.

John served as CRAB's President and Chief Executive Officer until 2015 when Dr. Hoering was named as the new President and CEO by the Board of Directors, following a national search. Antje joined CRAB in 2004 and was promoted to the role of Chief Scientific Officer in 2013. John, now Chief of Strategic Alliances, continued as Chair of the Board of Directors until passing the reins to Antje this year.

"I am proud and humbled to take on this new role from John," said Dr. Hoering. "John has been my mentor since I started at CRAB as a Senior Biostatistician in 2004 and I am grateful he will continue to contribute to the Board in other roles. We are very fortunate to have passionate and accomplished Board members who donate their time and expertise and will help move CRAB forward through the next 25 years. I look forward to the new challenges and opportunities."

BOARD OF DIRECTORS



Antje Hoering, PhD
President, Board Chair
Chief Executive Officer
Cancer Research And Biostatistics



John J. Crowley, PhD
Chief of Strategic Alliances
Cancer Research And Biostatistics



Angie Schroeder, MBA
Director
Center Business Operations
Seattle Children's



Cynthia Adkins, JD
Partner & Founder
Adkins Black, LLP



David Gray, PhD, MBA
Consultant
Oncology Research &
Development



Frank X. Curci, JD
Attorney and Shareholder
Buchalter



Gary Goodman, MD, MS
Senior Investigator
Swedish Hospital Tumor Institute
Fred Hutch



Kari Knudson, CFP
Relationship Manager
Commerce Bank of Washington



Michael LeBlanc, PhD
Group Statistician
Fred Hutch



Patrick Heagerty, PhD, MS
Biostatistics Professor
UW School of Public Health



Steve Snapinn, PhD
Independent Consultant

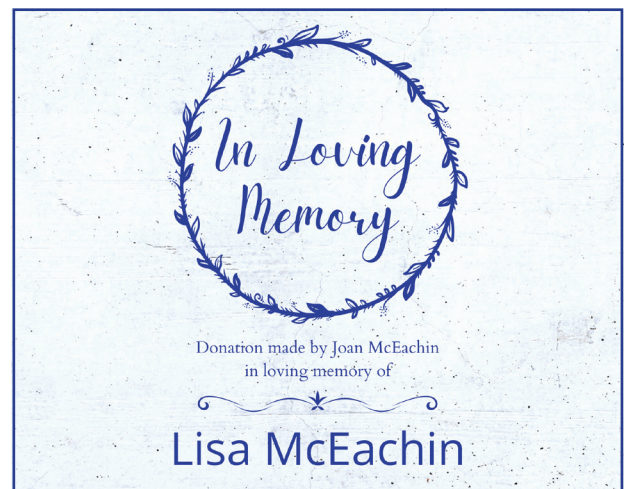


Tim Cummins
Managing Partner
Chief Investment Officer
Sonata Capital Group

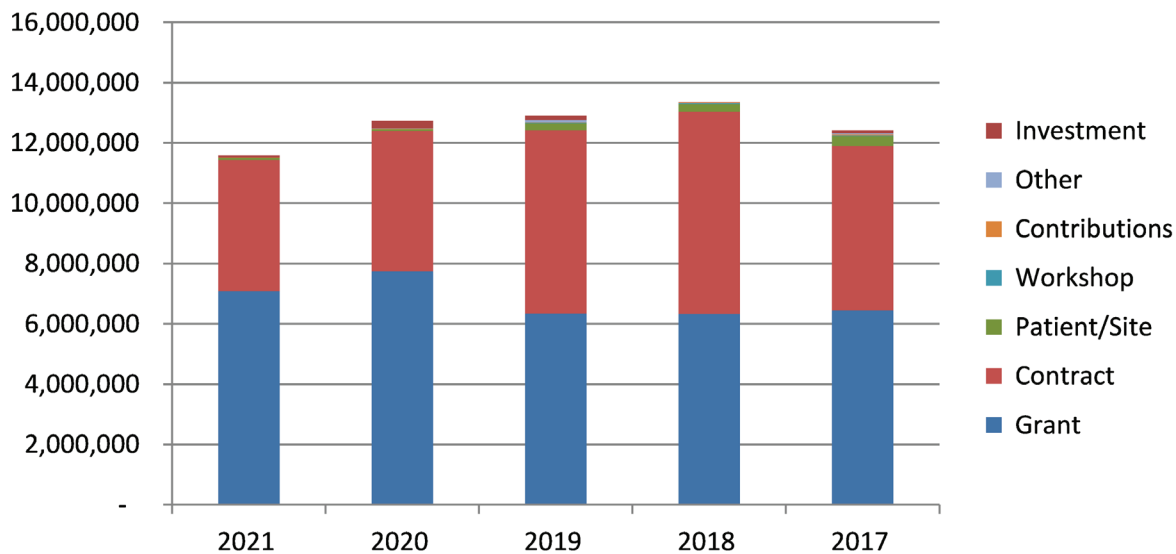
FRIENDS & SUPPORTERS

WE WOULD LIKE TO THANK THE MANY FRIENDS OF CRAB WHO MADE GENEROUS CONTRIBUTIONS IN SUPPORT OF OUR RESEARCH

- Aaron Schechter
- Amy Johnson
- Antje Hoering
- Curt Malloy
- Cynthia Adkins
- Dani Weatherbee
- David Gray
- John Crowley
- Julie Fox
- Kayla Burt
- Keith Goodman
- Laura Kingsbury
- Mike LeBlanc
- Phyllis Goodman
- Steve Snapinn
- Taylor Joosten
- William Barlow
- William Charters
- Amazon Smile
- Benevity Fund
- CAF America
- Fred Meyer Community Rewards
- Frontstream Workplace Philanthropy
- King County Employee Giving Program
- Network For Good
- UKOGF Foundation

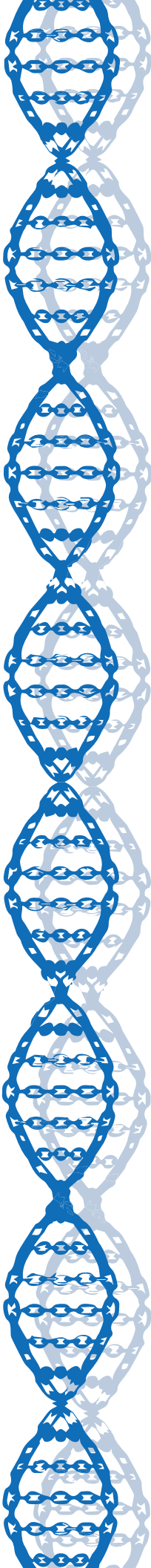


AUDIT & FINANCIAL SUMMARY



2021 revenue declined by 9% compared to the prior year. This decline is due to decreases in SWOG, private funding and investment income. Revenue from all SWOG sources were 9% below the previous year and 84% above a low of \$5,435,678 in 2013 reaching \$10,016,510 in 2021. Consistent funding led by our partners in the National Cancer Institute's National Cancer Trials Network sustained SWOG and thus CRAB's federal funding in 2021; augmented by SWOG Clinical Trial Partner projects funded by pharma collaborators. Clinical and Statistical Research Program contract revenue continues to diversify revenues albeit by a slightly lower level than 2020. Investment income continue to be positive though not as large as in 2021 and 2020.

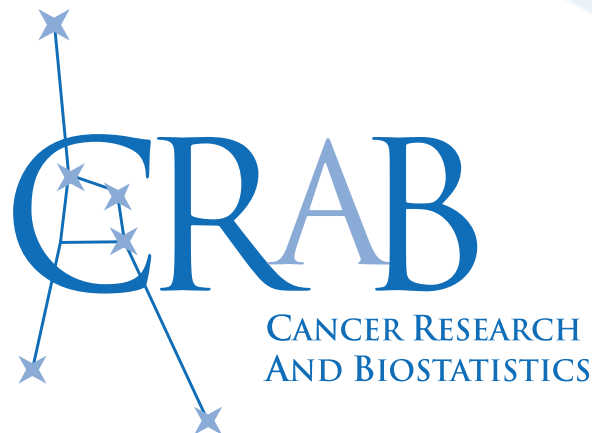
Support & Revenue	2021	2020	2019	2018	2017
Grant	7,080,797	7,739,288	6,347,985	6,329,347	6,445,862
Contract	4,353,449	4,655,815	6,074,878	6,700,740	5,452,502
Patient/Site	63,890	61,893	224,675	265,866	330,048
Workshop			21,010	23,008	25,467
Contributions	13,039	9,592	11,683	18,693	25,557
Other	101	12,832	81,441	(27,147)	45,512
Investment	84,733	256,965	148,338	14,000	101,471
	\$11,596,009	\$12,736,385	\$12,910,010	\$13,324,507	\$12,423,419
Operating Expenses	2021	2020	2019	2018	2017
Research	8,072,898	8,378,183	8,428,506	8,732,841	8,519,474
Workshops	3,308	832	21,011	23,008	25,466
Administration	3,711,171	2,902,275	3,769,381	4,270,035	3,267,703
	\$11,787,377	\$12,218,898	\$12,218,898	\$13,025,884	\$11,812,643

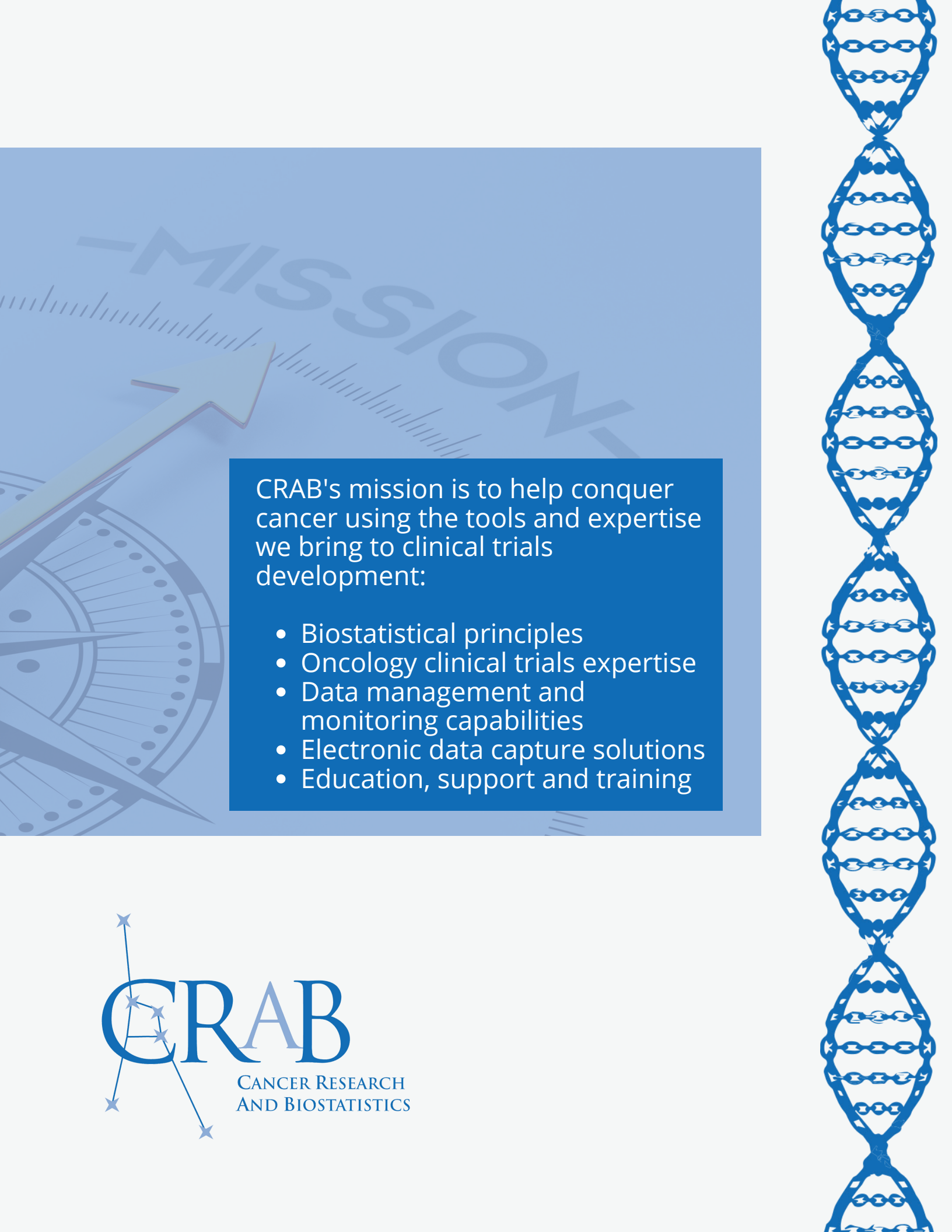


CANCER RESEARCH AND BIOSTATISTICS

OUR VISION

is to be a leader
in clinical trials research
to end suffering from cancer.





CRAB's mission is to help conquer cancer using the tools and expertise we bring to clinical trials development:

- Biostatistical principles
- Oncology clinical trials expertise
- Data management and monitoring capabilities
- Electronic data capture solutions
- Education, support and training

