Cancer Research for the Ozarks

NCI Community Clinical Oncology Research Program (NCORP)

Springfield, Missouri

The Year in Review
2014-2015

As I see it

Jay W. Carlson, DO
Principal Investigator

It is my pleasure to review some of the highlights of the past grant year for Cancer Research for the Ozarks (CRO) and to extend my appreciation to the participating institutions, the enrolling providers and staff and especially patients – who have tremendous faith in their treating providers and agreed to enroll on these trials. We were awarded approximately $1.1M for each of the 5 years of the NCI's Community Oncology Research Program (NCORP) grant. This last year, we made it through the first year of the new process and have already received notification that the year-two funding remains essentially unchanged for our program. CRO enrolled 172 patients to clinical trials in this grant year with 100 patients enrolled to treatment trials and 72 patients enrolled to cancer control trials. Trial availability was sluggish this year as the national research bases were continuing to re-organize and fewer trials were available. However, we have been notified by the NCI that our accruals were higher than most NCORP's and have been asked to share our process with other NCORP sites. We would not have achieved this without the successful integration of our component sites. This has been a busy year for the administrative staff as we have successfully completed numerous audits from different national cooperative research groups such as NRG, SWOG and Alliance with the ACRIN-ECOG audit due for October. We currently lead the nation with enrollments in the NCI's special Tissue Procurement Protocol and are one of only four sites nationally that is being offered an opportunity to expand tissue procurement with other unique protocols. These special protocols have been linked to additional funding outside of the standard grant process that has helped us financially as well.

Our education program has continued to offer national speakers on pertinent oncology topics as part of the Steering Committee meetings. Investigators and staff have attended a variety of cooperative group meetings throughout the year. These have been great opportunities to share our experiences, to learn about protocol results and to participate in discussions of upcoming protocols/studies.

The upcoming year will be challenging as we start to see protocols that address Cancer Care Delivery Research, a new focus of the NCI. These new concepts, reorganizations and "new rules" require considerable effort to remain competitive. But I believe we will do it and do it well.

Once again, I thank you and ask that you keep up the good work.

Progress Report

Marilyn Bauer, BSN, MEd, MHA, CRO Director

NCORP Program

After 27 years as a Community Clinical Oncology Program (CCOP), CRO became a NCI Community Clinical Oncology Program (NCORP) on August 1, 2014. CRO received a $5.2 million dollar grant ($1,040,000/year) over five years through the National Cancer Institute. It is an honor to be selected for the NCORP award as not all applications were accepted.

Approved in June 2013, the NCORP combined the Community Clinical Oncology Program (CCOP), Minority-Based Community Clinical Oncology Program (MB-CCOP) and the National Community Cancer Center Program (NCCCP). NCORP adds Cancer Care Delivery Research (CCDR) to existing CCOP research priorities of treatment studies, cancer control and prevention studies, and increasing enrollment of underrepresented groups. Information on the NCORP program can be found at http://ncorp.cancer.gov

NCORP Research Bases Reorganize

With the reorganization at NCI there are now four NCI adult Research Bases (Alliance, ECOG-ACRIN, NRG and SWOG)**.** CRO is a member of all four adult research bases. Mercy St. Louis is the only CRO component which is a member of the fifth NCI research base the Children's Oncology Group (COG). Wake Forest University and the University of Rochester (URC) were also selected to be NCORP research bases. CRO has been affiliated with Wake Forest since 2009. CRO has requested to become a member of the University of Rochester, but have been declined as they are not accepting new NCORP programs at this time. CRO has been on a waiting list and will continue to strive for an affiliation with URCC.

Cancer Care Delivery Research Coordinator (CCDR)

Cancer Care Delivery Research (CCDR) is a new focus for the NCORP grant. We anticipate CCDR will involve genetic counseling, disparities, quality care, survivorship, economic analysis and bio-specimens but this part of the NCORP program is not fully developed at this time. Many transitional pieces of the new program remain in process as we complete the first year of the new program.

CRO has taken a conservative role in hiring a CCDR Coordinator. A job description has been created, the position was posted and interviews were conducted. The position remains vacant and interviewing has been suspended as we await the opening of CCDR trials and more direction for this program.

CCDR activities are an ongoing agenda topic, discussed at all CRO Executive Board and staff meetings. As new CCDR information is obtained, it is disseminated to CRO investigators and research staff in the monthly "CRO Communique" (newsletter).

NCI Tissue Procurement Administrative Supplement

In August 2014, CRO applied for and received an NCI Administrative Supplement grant "P9846 - Patient-Derived Models Tissue Procurement Protocol for the National Cancer Institute (NCI). The project will assist NCI in the development of a tissue repository. CRO

was one of five NCORP programs accepted for this project and awarded $48,510 to collect and submit 100 blood specimens. The study objective is to procure biologic tissues and materials to generate preclinical models of cancer. Patients with solid tumors and lymphoma were consented to participate. All CRO Components were asked to participate in collecting blood samples for the project and reimbursed $450 for each specimen collected.

CRO staff and component research staff were trained on tissue collection and shipment for this study. Two 6 ml tubes of blood are drawn and immediately shipped to NCI following strict guidelines. Specimens are immediately de-identified. This study opened for enrollment on Friday May 15, 2015. Dr. Dalia and research nurse, Rita Glaze at Mercy Joplin registered the very first patient to the trial. CRO led this initiative nationally having completed 91 submissions on August 1, 2015. Six of the 100 specimens which remain to be submitted are longitudinal submissions and the patient must have a recurrence prior to that collection.

Since, CRO led the nation with the tissue procurement supplement they have another NCI supplement opportunity. We were notified on Monday, August 10, 2015 that CRO and one other NCORP program have the opportunity to apply for an additional supplement involving submission of 29 paired fresh tissue + blood collections. Each paired submission is rewarded with $3,500. Our original Tissue Procurement Supplement application was re-worked and submitted. This is another wonderful opportunity for CRO. We are eager to learn more about this supplement opportunity. We have a good NCORP and NCI is noticing.

Exceptional Responders Pilot Study: Molecular Profiling of Tumors From Cancer Patients Who Are Exceptional Responders.

CRO is participating in the Exceptional Responders Study which is a new NCI initiative to understand the molecular underpinnings of exceptional responses to systemic treatment in cancer patients. It was approved for CRO by the NCI Central Institutional Review Board, (CIRB), on October 29, 2014. Clinicians are asked to identify potential exceptional responder cases. An exceptional responder is a patient having an exceptional or complete response to experimental or standard cancer therapy for six months or more. This could be from patients enrolled in early phase clinical trials where fewer than 10% responded or could be from patients treated on later phase trials of single agents or combinations. It can also be from patients having exceptional responses from established cancer treatment. Potential cases for this study must be submitted to NCI for provisional approval before enrollment. NCI plans to examine tissue and clinical data from up to 300 exceptional responder cases and will conduct genome sequencing analyses. The information will be stored in a controlled access database so that qualified investigators will be able to access it for further research. CRO has submitted tissues from 35 consenting cancer survivors and had 8 accepted as exceptional responders as of August 1, 2015.

Precision Medicine Trials

CRO was pleased to see Precision Medicine trials open as the future is looking forward to a genetic cure for cancer. We have enrolled eight patients to SWOG 1400 “Phase II/III Biomarker-Driven Master Protocol for Second Line Therapy of Squamous Cell Lung Cancer” which opened in June of 2014. Four patients have been enrolled to the “The “Adjuvant Lung Cancer Enrichment Marker Identification and Sequencing Trials, or ALCHEMIST trial” since it opened in August of 2014. CRO is eager for our third precision

medicine trial, the "Molecular Analysis for Therapy Choice (MATCH)" trial to open. The MATCH trial offers even greater genetic profiling opportunities.

Dr. Carlson Elected to Serve on the NCORP Cervical Task Force

CRO's Principal Investigator, Jay Carlson was chosen to serve on the Cervical Task Force as a Community Oncologist by the NCORP PIs. The goal of the Gynecologic Cancer Steering Committee (GCSC) is to ensure that NCI supports the best-designed trials addressing the most important questions and leveraging the most significant scientific advances in gynecologic cancer. Dr. Carlson's role as a community oncology representative is to facilitate the development and evaluation of clinical trials that are attractive to patients and feasible in the community setting. His three year period began on October 1, 2014. The GCSC is one of sixteen steering committees formed in response to the recommendations of the Clinical Trials Working Group (CTWG). These committees leverage NCTN Group, SPORE, Consortia, and Cancer Center structures and involve the oncology community to address the design and prioritization of phase III and large phase II trials. The steering committees replace the CTEP concept review process for phase III and large phase II trials and provide a forum for strategic planning and prioritization.

Dr. Carlson Alliance Appointment

Dr. Carlson has accepted an appointment to the Alliance Community Oncology Committee. The committee meets twice yearly. Members are given the opportunity to participate as the study co-chair on Alliance clinical trials and periodically asked to provide input for concepts in development as they relate to the community practice. Congratulations Dr. Carlson!

National Research Engagement

CRO PI, Dr. Carlson's national research activities include being the Principal Investigator and Study Chair for GOG 0269 "A Limited Access Phase II Trial Utilizing Bioimpedance to Measure Lower Extremity Lymphedema Associated with the Surgical Management of a Vulvar Cancer" and Co-Chair of GOG 0244 "The Lymphedema and Gynecologic Cancer (LEG) Study: Incidence, Risk Factors and Impact in Newly Diagnosed Patients". Both studies closed to accrual in 2014. Dr. Carlson is currently involved with data analysis from the GOG 0244 trial.

CRO Staff Serve on National Committees

CRO's Clinical Research Coordinator, Basava Raju was appointed to serve on the Alliance and SWOG audit committees. Basava's first audit with Alliance was in the fall of 2014 at the Heartland NCORP in Illinois.

CRO's Director, Marilyn Bauer was appointed to the Alliance Prevention Committee in July of 2014. She is a member of the SWOG Cancer Care Delivery Research Sub-committee following the submission of CCDR trial concept possibilities and requesting to serve on the committee. She is eager to become more involved with both committees' activities.

Congratulations to Dr. Bonebrake

An abstract for GOG#0227G: "A Phase II Evaluation of Brivanib in the Treatment of persistent or Recurrent Carcinoma of the Cervix" is being prepared by John Chan, MD and is planned for submission to ASCO. Dr. Bonebrake had several enrollments to this study and will be added as a co-author.

CRO Invited to present at NCORP PI and Administrators Meeting

CRO has been invited to participate in a session entitled "NCORP Models of Infrastructure and Operations: Sharing What Works" during the upcoming PI and Administrators meeting on August 27-28, 2015 at NCI headquarters. NCI program Directors have noticed positive activity at our site and believe we could add insight by sharing some of our experiences during breakout sessions. CRO administration is looking forward to sharing CRO's processes for success.

Institutional Review Board Changes

A requirement for being selected as an NCORP program was that the NCI Central Institutional Review Board or CIRB be used when available. CRO began using NCIs CIRB for treatment trial approvals in September of 2013.

On January 14th, 2015 NCI's Cancer Prevention and Control (CPC) CIRB was initiated. The addition of the CPC CIRB extended the benefits of centralized IRB review to investigators participating in studies sponsored by the NCI's Division of Cancer Prevention. The CPC CIRB review of studies developed by the DCP-sponsored NCORP and Consortia programs began in February of 2015. As with the existing CIRBs, the membership of the new CPC CIRB was carefully selected to ensure that the CIRB has the expertise required to review studies sponsored by the NCORP and Consortia programs. Members have been selected based on their expertise in cancer prevention and control, ethics, advocacy, and protection of human subjects.

In March 2015, CoxHealth decided to no longer have an internal IRB. Mercy Springfield's IRB agreed to accept IRB responsibility for CRO studies at CoxHealth, Freeman, Central Care and Phelps County as they were already approving CRO studies for our other CRO components (Mercy Springfield, Mercy Joplin, Mercy St. Louis, Mercy Rolla and Good Samaritan). CRO worked to transfer all CRO studies opened at Cox to the Mercy Springfield IRB. The transfer was completed May 15, 2015. This process will enhance our efficiency and streamline the process for review of studies.

Quality

NRG Audit

CRO had a great NRG research base audit. Seven different NRG auditors were at CRO February 17-19, 2015. The auditors found no major deviations for regulatory and only one for drug accountability. Only 4 major patient case review deviations which required a written corrective action plan were noted. This was impressive considering 50 charts were reviewed. This is the largest audit in CRO's history. CRO staff was repeatedly complimented by our auditors for our well-organized chart documentation and for being an overall impressive site.

Alliance Audit

The Alliance research group conducted their 3-year audit with CRO on June 4-5, 2015. Four auditors were with CRO. Two were from the Alliance Chicago office and the other two are physicians from the NCORP sites in Kansas City and Wisconsin. Twenty –three charts were reviewed. CRO received 2 major deviations and one lesser for regulatory; three non-compliance for pharmacy and four majors for patient case review. A corrective action plan was developed and submitted to the Alliance auditors.

Children's Oncology Group Audit

On November 19, 2014 Children's Oncology Group (COG) visited Mercy St. Louis for a routine audit. The results were acceptable requiring follow-up for regulatory, pharmacy and case reviews. A corrective action plan was developed and submitted. The site was notified their corrective action plan was acceptable on January 23, 2015 and the site was scheduled for their next routine audit in approximately three years. Mercy St. Louis is the only CRO component to participate in COG trials.

SWOG will be here on August 4 – 6, 2015 for their 3-year audit. ECOG-ACRIN will be here October 21 – 23, 2015. This will complete CRO's 3 year research base audits for 2015.

Internal Auditing

Yearly, CRO attempts to conducts internal auditing at its component sites. The CRO internal auditing team consists of CRO's Study Coordinator, Basava Raju, Director, Marilyn Bauer, Office Manager Debbie Cane and Research Nurse Sharon Brown. On April 16, 2015 the team traveled to Rolla, Missouri where they attended the site's tumor conference, presented an update on NCORP activities and highlighted Precision Medicine trials. They spent the remainder of the day auditing pharmacies and patient charts.

Phelps County and Central Care periodically bring their charts to Springfield or CRO's Study Coordinator, Basava Raju travels to these sites for internal auditing.

CRO Steering Committee Meetings

On Monday, October 13, 2014 CRO held our fall Steering committee meeting at TOUCH restaurant. Larry Geier MD was the speaker. Dr. Geier has 30 years of clinical experience. From 2007-2014, Dr. Geier served as the Director of Clinical Genetics, Kansas City Cancer Center. During this time, he presented 17 Clinical and Scientific Abstracts on Hereditary Cancer Testing at ASCO, ASBS, and other conferences. Uniquely, he has tested over 200 patients using a 25-gene panel, and can expertly compare and contrast this approach to "single syndrome" testing using scientific data, case studies, and clinical experience. An entertaining speaker, Dr. Geier's unique experience positioned him to expertly present this important component of precision medicine from a scientific, clinical, and practical perspective. Forty-four physicians and research staff attended Dr. Geier's presentation.

Michelle Hurchla Pyles, PhD was the speaker for our CRO Steering Committee meeting on Thursday, June 11th at Touch Restaurant. The title of Dr. Pyle's presentation was "An overview of OPDIVO (nivolumab) in Metastatic Melanoma and Squamous NSCLC". Dr. Pyles was highly recommended and obtained her doctorate in Immunology from Washington University in St. Louis in 2007, characterizing a newly identified immune checkpoint inhibitor. She continued her post-doctoral training in translational cancer research in the Division of Oncology at Washington University School of Medicine, resulting in her appointment to a faculty position as Research Instructor in the institution's Section of Molecular Oncology in 2011. During this time, she focused on developing innovative treatment strategies for certain metastatic cancers by investigating agents that modulate immune or host cell functions to exert an anti-cancer effect. Her work has resulted in numerous peer-reviewed publications, with several of her preclinical findings impacting clinical development. In her current role as a Medical Science Liaison, she provides

scientific and clinical information to health care providers regarding immuno-oncology. Approximately 25 physicians and research staff attended this event.

On June 18, 2014, CRO sponsored a Steering Committee meeting in St. Louis for our distant components. Dr. Carlson opened the meeting via WebEx and gave an update of CRO activities. Dr. Dean Asad spoke on "A New Treatment Option in Previously Treated Chronic Lymphocytic Leukemia and Mantle Cell Lymphoma".
Program objectives included:

- Introduce a new treatment option in previously treated chronic lymphocytic leukemia and mantle cell lymphoma
- Discuss the safety and efficacy profile of a new treatment option
- Identify patients and review recommended dosing and administration

Twenty-six investigators and research staff attended the event. Four CRO staff drove to St. Louis for the event and completed internal auditing while there. Another CRO Steering Committee meeting is being planned in St. Louis for September 1, 2015.

Research Base Meeting Attendance

CRO's PI and Director encourage research base attendance and involvement with committees as this is where changes and upcoming trials are discussed. During CRO Executive Board meetings members were encouraged to attend meetings and get involved on a national level. Dr. Carlson contacted physicians to personally encourage their meeting attendance and involvement. CRO's Director has also contacted oncologists individually inviting them to attend research base meetings and encouraging their involvement in the groups according to their interest. CRO's attendance at grant year 2014 – 2015 research base meetings is noted in the chart below.

	Meeting Dates	Attendance
NCI PI & Administrators	September 22, 2014	Dr. Jay Carlson, PI & Marilyn Bauer, Director
SWOG Fall	October 23-15, 2014	Basava Raju, Clinical Research Coordinator
Wake Forest	October 16-18, 2014	Marilyn Bauer, Director
Alliance	November 5-8, 2014	Basava Raju, Clinical Research Coordinator
ECOG-ACRIN	November 13-15, 2014	Basava Raju, Clinical Research Coordinator
NRG	February 5-8, 2015	Drs. Al Bonebrake, Associate PI; Jay Carson, PI; Abe Abdalla, Investigator & Marilyn Bauer, Director
SWOG	April 29 – May 2, 2015	Dr. Roger Holden, Investigator; Marilyn Bauer, Director; Basava Raju, Clinical Research Coordinator; and Wendy Klafehn, Research Nurse
NRG	July 15 - 18, 2015	Drs. Al Bonebrake, Jay Carson, Abe Abdalla & Marilyn Bauer, Director

CRO's PI and Director encourage participation in online trial specific webinars. Electronically information is forwarded to encourage investigators and research staff at all components to attend.

Clinical Trial Billing Webinar

CRO engaged Kelley Willenberg, a nationally recognized expert in clinical trial billing, to present a webinar for CRO research and billing staff on June 17, 2015. Kelly has extensive

knowledge in clinical trials management and research compliance, including all aspects of billing compliance. She has nearly 30 years of clinical research experience with 15 of those with billing compliance. She is an experienced oncology nurse and has presented at HCCA, ONS, Academy of Health Care Administrators, ASCO, AHLA, MAGI, ExL Pharma and other professional organizations. Kelly gave a very informative presentation on clinical trial billing and research compliance including how to bill for patients who have Medicare Advantage. Forty-five research staff and their institutional billing representatives attended. CRO is hopeful this will result in additional patients being placed on study who have billing issues especially component sites who have large Medicare Advantage populations.

Bringing Together CRO Components

As CRO has grown geographically, the need to bring together the components is recognized. While each of the nine CRO components (CoxHealth, Mercy Springfield, Mercy Joplin, Freeman Health System, Cox Medical Center Branson, Central Care, Phelps County, Mercy St. Louis and Good Samaritan) have the resources to support NCI-sponsored clinical trials research, CRO recognizes the need to provide ongoing training, education, outreach, and oversight to ensure maximum participation while ensuring patient safety especially as NCORP expands the scope of discovery. The following activities enhance component communication and coordination:

- Site PI's are invited to participate in the CRO Executive Board meetings via the WebEx tool.
- A monthly CRO Communiqué listing trial enrollments, open and closed studies, study profiles and CRO events is sent to investigators, research staff, and others interested CRO.
- An annual CRO report is published and distributed at the end of each grant year.
- CRO Steering meetings are held biannually. These meetings consist of an update of CRO events and presentation with nationally recognized speakers.
- CRO Springfield staff travel to other components for internal audits and to encourage enrollments with investigators annually.
- CRO's Director sends a 'Marilyn's Message' to enrolling staff on a weekly or as needed basis.
- CRO component research staff are invited to participate in the CRO monthly new study meetings via the WebEx tool.
- The CRO Administrative Office staff is available to assist all components including new staff orientation, assistance with the CREDIT database, checking eligibility criteria, etc.
- Dr. Carlson, CRO's PI sends out email notification to the appropriate investigators when new innovative trials are being opened such as the precision medicine trials.
- All research staff and representatives from their billing departments participated in a webinar to educate and clarify clinical trial billing.

The Springfield administrative office provides centralized coordination of administrative and quality assurance including regulatory compliance, research board coordination, internal and external monitoring and auditing, physician and staff credentialing, and general administrative management. CRO staff conducts component site visits.

CRO Enrollments to Clinical Trials

CRO enrolled 172 patients to clinical trials in grant 2014-2015. 100 were enrolled to treatment trials and 72 patients were enrolled to cancer control trials. This resulted in 79.41 treatment and 58.83 cancer control trials credits for a total of 138.24 credits. Trial availability was sluggish this year as research bases were continuing to re-organize and fewer trials were available.

Achieving Target Credit Goals

Grant year 8/1/2014- 7/31/2015 was unlike previous years for CRO enrollments to clinical trials. NCI assigned CRO target credits of 85 for treatment and 85 for cancer control. Knowing that NCI's expectation was lower than the 200 required to be funded as a high achieving NCORP, CRO's Executive Board made the decision to increase CRO's target goals. The Executive Board set CRO's target treatment credit goal at 110 and cancer control credit goal at 110 for this grant period. CRO earned 79.41 treatment credits which was 93.4% of NCIs target (85 credits) and 72.2% of our Executive Board target. CRO earned 58.83 control credits which was 68% of NCIs target (85 credits) and 53.5% of our target accrual credits of 110 set by the Executive Board. Thirty-nine CRO research investigators participated in making this happen.

Achieving over 200 credits is a big goal for CRO as NCORP grant recipients receive $4,000 per credit if they have earned over 200 credits for the past three consecutive years. If recipients have earned less than 200 credits over the past years, they will be reimbursed at $2,500 per credit with NCORP. CRO is hopeful that they will continue to be funded as a higher NCORP considering low accruals during grant year 2014-2015 were an issue for most other NCORP programs as well.

Credits are different from registrations. A registration is defined as one patient enrolled into one trial. Registrations tell us the number of patients in particular trials. Not all enrollments receive credit. Credits are the NCI value assigned to each trial registration. This past year, CRO had 184 registrations for credit, and 32 no-credit registrations, for a total of 216 registrations. Of that total, our nine components, (Mercy Joplin, Freeman Health, Cox Branson, Central Cares PA, Phelps County, Mercy St. Louis and Good Samaritan) contributed 84 registrations. Our components contributed 46% of our total registrations this grant year. Last grant year our components contributed 42% of our total registrations.

Efforts to increase Trial Enrollments

CRO has seen historically low accruals this grant year and has taken many efforts to increase accruals to clinical trials including:

On December 19, 2014 CRO's PI, Dr. Jay Carlson sent a Mercy-wide request to all oncologists to explore the concept of incorporating all Mercy facilities into one unit for Mercy patients who are eligible for NCI clinical trial enrollment. Three Mercy institutions, Mercy Springfield, Mercy St. Louis and Mercy Joplin are already CRO components. An issue for CRO is that oncologists at these sites are participating in industry sponsored trials and receive financial reimbursement for their efforts.

All enrolling research staff at each CRO site records their screenings in the CRO CREDIT data base. Bi-monthly screening statistics are pulled and shared with each site and the CRO Executive Board. The board reviews these statistics and seeks ways to increase enrollments. For example, one site was noted to have a high incidence of physicians

declining to place patients on trials. Looking further into the data revealed this involved several physicians. The site PI then spoke with these individuals to encourage trial participation.

In November 2014, CRO staff developed an action plan to enhance enrollment to trials. Below are several steps from the plan.

1. PI and Director to meet with medical oncologist at Cox and Mercy to discuss need to increase enrollments.
2. Discuss the Alliance A221301 (nausea) with nurse practitioners at all sites.
3. CRO staff to give patients on trials appointment cards.
4. Send a letter from CRO's PI and research staff to new trial participants thanking them for enrolling.
5. Staff to explore the reasons why investigators decline their patients to participate in a clinical trial and document this in our CREDIT database for analysis

Following the Clinical Trial Billing webinar in June for our research staff and billing representatives CRO's Director has requested she be notified of any patient being denied insurance coverage due to participation on a clinical trial. None have been reported to her at this time.

Dr. Carlson, CRO's PI has sent email messages to investigators alerting them of low accruals and asking for their support. He has sent messages to investigators and research staff announcing the Exceptional Responder initiative, CRO's Tissue Procurement supplement and newly opened trials which he feels is exceptional such as the precision medicine trials.

CRO staff consistently identifies all patients eligible for clinical trials. Below are steps CRO takes to identify patients for studies at all CRO sites:

- Research staff screen all new patients seen in the investigator's offices and also those being seen to discuss test results, scans, treatment options, hospital follow-up etc.
- Research staff screens all recall patients.
- Research staff sends a note with schema of trial attached to MDs notifying them of patient's possible eligibility prior to patient's visit.
- Distribute every other month updated pocket sized protocol flip cards to fit into MDs lab coat pockets for quick reference.
- Provide binders with tabbed (disease site) protocol catalogue at each MD's work place and update as needed.
- Research staff screen patients being presented at Tumor Boards and inform the investigator and attendees of eligibility and the available protocols at the meeting.
- IRB approved fliers for specific trials are placed in patient waiting and exam rooms.
- CRO profiles a clinical trial weekly for the medical oncologists after this suggestion was made by a medical oncologist in March of 2015.

CRO Recognized by Alliance

CRO was one of the Top 50 highest accruing member institutions of the Alliance for Clinical Trials in Oncology during grant year 2014-2015. In recognition of this great achievement, Alliance is awarding CRO with a funded travel spot for a hardworking Alliance research staff member (i.e., oncology nurse, fellow, or clinical research associate) to attend the upcoming Alliance November 2015 Group Meeting. CRO's Cindy Dievert had enrolled 11 patients to Alliance trials this past grant year and has been asked to attend the meeting.

Community Involvement

CRO's director volunteers with the Council of Churches "Safe to Sleep" Program. Safe to Sleep is a homeless women's shelter in Springfield. The program is volunteer-driven and staffed. Local churches open their doors for the homeless women to sleep 10 hours nightly. Volunteers spend a minimum of one night each month staffing the shelter and assisting the guest as needed. Involvement with the community's indigent population is important as the economically poor are CRO's disparity group. She also participated in the Council of Churches Day of Caring to connect homeless individuals with resources.

CRO participated in the 18th Annual Springfield Multicultural Festival, a community event with booths and educational information. Approximately 200 attended this event.

CRO Staff

CRO Springfield staff includes the director, office manager, regulatory compliance coordinator, clinical research coordinator, 4.5 registered nurses and 3 clinical research assistants.

CRO is following the lead of other research sites in opening our RN research positions up to include others with a Bachelor's degree in a health related field. CRO leadership approved the change and job descriptions have been revised to include this language. During this time of vast nurse shortages CRO has had few applications for our nurse position and feel this is the time to make the change. Other NCORP programs have hired those with a Bachelor degree in a health related field and had great success.

The four full time research nurses and two clinical research assistants who enroll patients in Springfield at CRO accrued 100 registrations this past grant year. This is approximately 16.6 registrations per staff. In addition they enrolled 37 to the tissue procurement initiative and had 6 exceptional responders approved. CRO's research nurses enroll to treatment trials and clinical research assistants enroll to cancer control trials under the guidance of the research nurses and clinical research coordinator. CRO's clinical research coordinator, PRN research nurse and follow –up clinical research assistant assist clinical staff as needed, staffing for vacations performing internal auditing and providing staff education on clinical trial documentation.

Meeting the CRO Goals for 2014-2015

Last year, CRO defined goals. Below are the goals and our progress in meeting these goals.

CRO Goals	Achievements
Goal 1. Increase accruals to NCI clinical trials	
1. Obtain an NCORP grant	1. Awarded NCORP grant for 5.2 Million funding began on 8/1/14
2. Exceed NCI's treatment credit goal by 2% during grant year 2014-15	2. Earned 79.41 treatment credits – 5.59 below NCI's target of 85 for CRO
3. Exceed NCI's cancer control credit goal by 2% during grant year 2014-15	3. Earned 58.83 cancer control credits – 26.17 below NCI's target of 85 for CRO
4. Develop Cancer Care Delivery Research at Cox and Mercy Springfield	4. Interviewed for CCDR position with positioned offered to two candidates both declined due to careers ending in 2 years and inability to meet salary requirements. On hold at this time waiting for release of CCDR studies
5. Explore "Trial Prospector" for patient screening when available	5. 2/15 NCI announced they are working to set up a screening tool for NCI trials. When asked when it would be available no definite date was given but assured Dr. Worta McKaskill Stevens is working on this effort.
6. Explore instituting a clinical trial educational course for patients such as Pre-Act	6. 2/15 Checked on this in November and March 2015 and told course development is taking longer than expected and not available at this time.
7. 100% of all cancer patients be screened at all components sites	7. All local patients are screened and screening recorded in CRO CREDIT database. All components have been encouraged to screen all oncology patients as well and document in CREDIT.
Goal 2. Improve communication efforts to keep CRO investigators and health care extenders aware of clinical trial availability	
8. Visit yearly with physicians and staff at each of our components to offer assistance and encourage enrollment to trials	8. Internal auditing at St. Louis & Mt. Vernon on 6/18/14, Phelps County on 4/15/15. Central Care & Phelps County research nurses regularly meet with CRO Clinical Research Coordinator for documentation review.
9. Twice yearly CRO Steering Committee meetings with national speakers on new cancer therapies and treatments	9. Fall meeting on 10/13/14 with Larry Geier MD speaking on Hereditary Cancer Panel Tests in the Oncology Setting Michelle Hurchla Pyles, PhD was CROs speaker on 6/11/15. The title of Dr. Pyle's presentation is "An overview of OPDIVO (nivolumab) in Metastatic Melanoma and

10. Hold one CRO Steering Committee meeting in St. Louis allowing component investigators and outlying staff to attend	Squamous NSCLC". 10. 6/18/14 Dean Asad MD spoke on Hereditary Cancer Panel Tests in the Oncology Setting - Scientific and Clinical Perspectives from a Thought Leader"
11. At least two CRO research staff will work with the economically poor (unrepresented group for our community)	11. CRO's Director volunteers monthly with Council of Churches "Safe to Sleep" program
12. Explore concept of assigning different PIs for each research base	12. At the July 14, 2014 CRO Executive Board meeting this idea was discussed. Possibly a goal for next grant year.
Goal 3. Ensure quality at CRO	
13. 75% of CRO's clinical research professionals will be credentialed as certified research professionals or oncology nurses OCN certification is a goal for all local RN's	13. This continues to be a goal for CRO.
14. Randomly select at least one patient record from each staff enrolling patients for quarterly internal auditing	14. Being done when time allows. Many charts were internally audited in preparation for research base audits.
15. Work for improved quality assurance at CRO and its components with: 1. Work for quality data submission 2. Maintaining timely and accurate data submission 3. Responding to queries in a timely manner to address those that occur	15. This is ongoing. Basava Raju, CRO's educational staff trainer reviews documentation for all new staff and component staff for the first six months of their service at CRO and randomly thereafter. During the first week of each month, delinquent data or un-responded queries are downloaded from the research bases websites for each research staff. The Director forwards the list to each staff member reminding them to respond to queries in a timely manner and to submit all delinquent data.
Goal 4. Promote CRO on a National Level	
16. PI and director to volunteer on NCI Committees	16. Dr. Carlson serves on the Ancillary Data Subcommittee and Cancer Prevention and Control Committee at GOG/ NRG. Basava Raju is serving as an auditor for NRG. Marilyn Bauer serves on the Alliance Prevention Committee and SWOG's Cancer Care Delivery sub-committee.

Goals & Opportunities for CRO for Grant Year 2015-2016

The CRO Executive Board approved the following goals for grant year 2015- 2016.

Goal 1. Increase accruals to NCI clinical trials

- Exceed NCI's treatment credit goal by 2% during grant year 2015-16
- Exceed NCI's cancer control credit goal by 2% during grant year 2015-16
- Develop Cancer Care Delivery Research at Cox and Mercy Springfield as the program becomes available
- Explore telemedicine for clinical trial enrollments
- 100% of all cancer patients be screened at all CRO component sites

Goal 2. Improve communication efforts to keep CRO investigators and staff aware of clinical trial availability

- Visit yearly with physicians and staff at each of our components to offer assistance and encourage enrollment to trials
- Hold twice yearly CRO Steering Committee meetings with national speakers on new cancer therapies and treatments
- Hold one CRO Steering Committee meeting in St. Louis allowing those far away to attend
- Explore concept of assigning different PIs for each research base

Goal 3. Ensure quality at CRO

- 75% of CRO's clinical research professionals will be credentialed as certified research professionals or oncology nurses
- Randomly select at least one patient record from each staff enrolling patients for quarterly internal auditing
- Work for improved quality assurance at CRO and its components with:
    1. Maintaining timely and accurate data submission
    2. Responding to queries in a timely manner to address those that occur
- Stabilize staff turnover at Hulston Cancer Center

Goal 4. Promote CRO on a National Level

- Encourage new investigators to become involved in NCI trials locally and at a national level
- Strive to have a CRO representative involved on committees at all NCI research bases

Protocol Reports: 2-Year Comparison of Registrations & Credits

CRO Finances

CRO is supported by the generosity of our two sponsoring health systems, CoxHealth and Mercy Springfield. Since the beginning of CRO in 1987, these institutions have generously supported cancer research in our community by equally absorbing dollars not provided by our grant each year. CRO works hard to control expenses. The two tables below compare our FY 2013-2014 and FY 2014-2015 revenues. Accounting, lab, radiology services and office space for staff are just a few of the many benefits our sponsors provide for CRO which are not reflected in the numbers below.

CRO received $100,000 this grant year for Cancer Care Delivery Research (CCDR) activities. CRO spent approximately $3,000 of the CCDR funding to develop a CCDR Coordinator job description, interview applicants, attend CCDR research base meetings and webinars. CRO will request that the remaining funds be carried over to grant year 2015- 2016.

NCI's Administrative Supplement grant "P9846 - Patient-Derived Models Tissue Procurement Protocol for the National Cancer Institute was another source of revenue for CRO this grant year. CRO was awarded $48,510 to collect 100 tissue samples for NCI.

The CCDR and Tissue Procurement unused funding is the main reason for CRO unused funding balance. CRO will be requesting both resources be carried over to the upcoming grant year.

Revenues	Fiscal Year 2013-2014
Federal	847,890
Other	149,502
Total Revenues	997,391
Total Expenses	1,034,865
Deficit * *	37,473

Revenues	Fiscal Year 2014-2015
Federal	$921,284
Other	147,354
Total Revenues	1,068,638
Total Expenses	1,010,096
Remainder *	58,542

*If there is a deficit is split equally between CoxHealth and Mercy Springfield

Fiscal year 2014-2015 -- Remainder is $58,542
Fiscal year 2013-2014 – Deficit $37,473
Fiscal year 2012-2013 – Remainder was $5,580

Treatment

RESEARCH BASE	2013-2014 REGISTRATIONS	2013-2014 CREDITS	2014-2015 REGISTRATIONS	2014-2015 CREDITS
Alliance			15	7.15
CALGB			9	9.99
COG	6	10	4	7.6
CTSU	50	29.6	1	1.04
ECOG-ACRIN			33	28.06
GOG	33	23.2	1	1.03
MD Anderson	0	0	0	0
NCCTG	1	1	0	0
NRG			1	0.06
NSABP	15	15.2	2	2.13
RTOG	10	10	1	0.13
SWOG	9	9	33	22.22
SunCoast	0	0	0	0
Wake Forest	0	0	0	0
Grand Totals	**124**	**98**	**100**	**79.41**

Cancer Control & Prevention

RESEARCH BASE	2013-2014 REGISTRATIONS	2013-2014 CREDITS	2014-2015 REGISTRATIONS	2014-2015 CREDITS
Alliance			25	23.25
CALGB			6	2.5
COG	9	9	5	2
CTSU	22	15.5	0	0
ECOG-ACRIN			14	3.8
GOG	46	40.5	15	15
MD ANDERSON	0	0	0	0
NCCTG	0	0	0	0
NRG			6	6
NSABP ***(new)***	10	7	10	4.65
NSABP ***(follow up visits)***	21	2.3	0	0
RTOG	5	2.3	1	1.13
SunCoast	4	4	0	0
SWOG ***(new)***	38	22.5	2	0.5
SWOG ***(follow up visits)***	11	3.3	0	0
WAKE FOREST	1	1	0	0
Grand Totals	**167**	**107.4**	**84**	**58.83**

Registrations by Affiliate/Site (Follow up credits not included)

Component/Affiliate*	2013-2014 REGISTRATIONS	2013-2014 CREDITS	2014-2015 REGISTRATIONS	2014-2015 CREDITS
Central Care, PA	2	1.5	5	4.2
Cancer Hematology Center	49	33.2	48	34.23
Cox Surgeons	0	0	0	0
Ferrell-Duncan Clinic Gynecological	17	15	7	7
Freeman Medical Center (Joplin)	16	7.9	8	5.28
Good Samaritan	18	8.2	15	10.02
Mercy Joplin	2	2	7	2.37
Mercy Clinic Rolla	2	2	3	2.2
Mercy St. Louis	60	43.3	38	31.32
Phelps County Regional Medical Ctr.	6	5.3	1	1.36
Oncology Hematology Associates	31	23.2	27	19.38
Radiation Therapy Center Cox	1	1	2	1.19
Cox Medical Center Branson	0	0	0	0
Mercy Women's Oncology Care	61	47.7	13	13.03
Mercy Springfield's Radiation Oncology.	5	4	0	0
No Credit at Mercy	1	0	3	0
St. Louis Cancer & Breast Institute	21	11.10	7	6.15
Grand Totals	**291 +1(0 credit)**	**205.4**	184	137.74

All-inclusive 12-month Accrual for All Types of Protocols by Research Base

RESEARCH BASE	2013-2014 REGISTRATIONS	2013-2014 CREDITS	2014-2015 REGISTRATIONS	2014-2015 CREDITS
Alliance			40	30.40
CALGB			15	13.53
Children's Oncology (COG)	15	19	9 + 20	9.1
CTSU	70	43.6		0
ECOG-ACRIN			47 + 1	31.86
GOG	79	63.70	16	16.03
MD ANDERSON	0	0	0	0
NCCTG	3	2.5	0	0
NRG			7	6.06
NSABP	25	22.2	12 +4	6.78
RTOG	15	12.3	2	1.26
SWOG	47	31.5	35 + 5	22.72
Suncoast	4	4	0	0
WAKE FOREST	1	1	0	0
Total Reg. & Credits	**259**	**199.8**	**184 + 30**	**137.24**
Industrial Trial Reg.	1	0	2	
Plus follow-up	32	5.6	0	
Grand Total	**292**	**205.4**	**184 +32**	**137.74**

*Credit + noncredit registrations **Registrations totaled

Target Credits for CRO 08/01/2014 – 07/31/2015

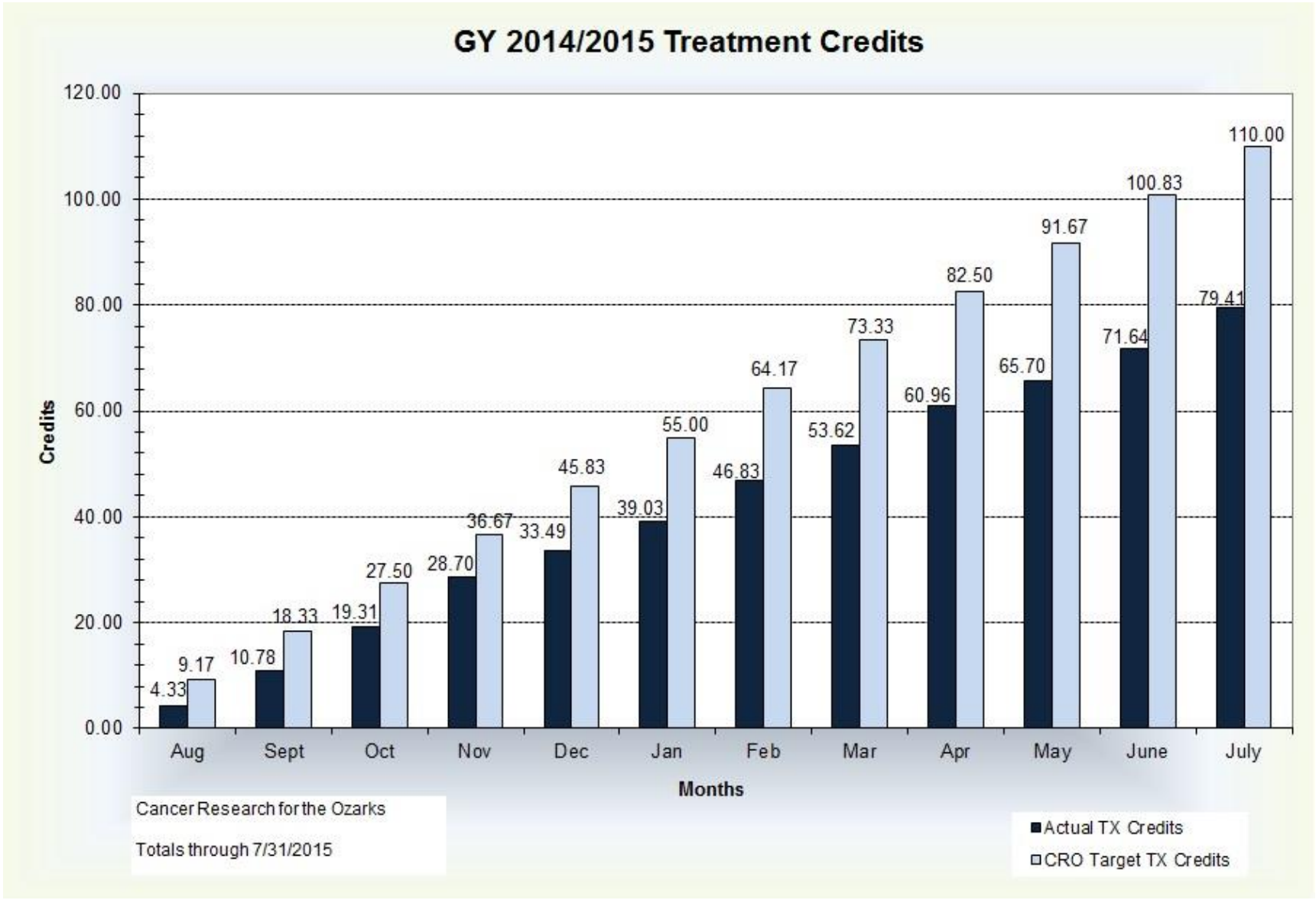
79.41 Treatment Credits and 57.83 Cancer Control Credits

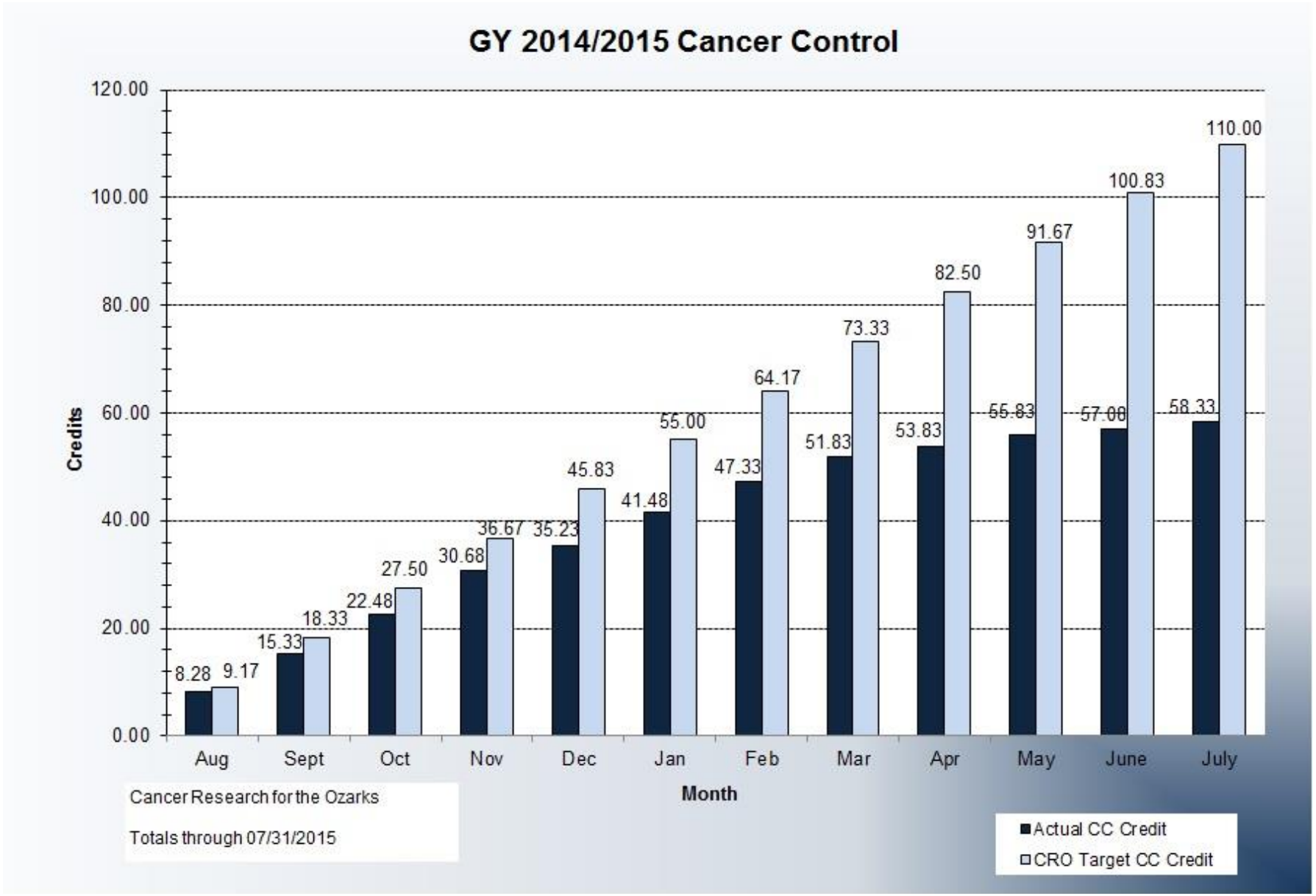
Patient Registrations by physician August 1, 2014 to July 31, 2015

	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Total		Credits Earned	Exceptional Responders	Tissue Procurement Regist.
	c	n/c	c	n/c	c	n/c	c	n/c	c	n/c			
Ali	2	0	0	0	1	0	0	0	**3**	**0**	**2.2**		1
Bechtell	0	1	1	3	3	4	0	2	**4**	**10**	**4.0**		3
Bonebrake	6	0	0	0	1	0	0	0	**7**	**0**	**7**		
Brahmand	0	0	0	0	0	0	0	0	**0**	**0**	**0**		2
Carlson	5	0	3	0	3	0	2	0	**13**	**0**	**13.03**		6
Chobanian	1	0	0	0	1	0	0	0	**2**	**0**	**2**		
Clouse	1	0	0	0	0	0	1	0	**2**	**0**	**1.19**		
Craft	1	0	0	0	1	0	0	0	**2**	**0**	**2.05**		
Creach	0	0	0	0	0	0	0	0	**0**	**0**	**0**		1
Croy	3	0	0	0	1	0	0	0	**4**	**0**	**2.2**		
Cunningham	2	0	4	0	1	0	0	0	**7**	**0**	**4.52**		1
Dalia	0	0	0	0	0	0	0	0	**1**	**0**	**0.06**		15
Ding	0	0	0	0	0	0	0	0	**0**	**0**	**0**		3
Donegan	4	0	4	0	2	0	0	0	**10**	**0**	**5.91**		2
Ellis	4	0	3	0	2	0	1	0	**10**	**0**	**8.07**	3	2
Finnie	0	0	1	0	2	0	6	0	**9**	**0**	**6.55**	1	
Gillett	1	0	0	0	0	0	3	0	**4**	**0**	**2.6**		4
Goodwin	0	0	0	0	0	0	1	0	**1**	**0**	**1.11**		
Hanson	1	2	1	4	1	2	3	1	**6**	**9**	**4.6**		
Hassan	0	0	0	0	0	0	1	0	**1**	**0**	**0.06**		2
Holden	3	0	1	1	0	0	0	0	**4**	**1**	**2.25**	2	
Hoos	1	0	0	0	4	0	2	0	**7**	**0**	**5.35**		3
Hu	1	0	0	0	0	0	0	0	**1**	**0**	**1.13**		2
Huq	1	0	1	0	2	0	0	0	**4**	**0**	**3.1**		
Jaboin	0	0	0	0	0	0	0	0	**0**	**0**	**0**		2
Klix	2	0	2	1	1	0	0	0	**5**	**1**	**2.92**		
Kosuri	2	0	1	0	0	0	0	0	**3**	**0**	**1.67**		2
Lafrancis	0	0	0	0	1	0	0	0	**1**	**0**	**0.06**		6
Luedke	1	0	0	0	0	1	0	0	**1**	**1**	**1.05**		3
Miller	2	0	1	0	2	0	0	0	**5**	**0**	**3.97**		1
Myers	1	0	0	0	0	0	0	0	**1**	**0**	**0.05**		
Nair	1	0	1	0	0	0	1	0	**3**	**0**	**2.33**		1
Nevils	0	0	0	0	0	0	0	0	**0**	**0**	**0**		1
Oza	0	1	9	1	2	0	3	0	**14**	**2**	**10.02**		
Pinhero	0	1	0	0	2	2	0	0	**2**	**3**	**1.25**		
Raju	2	0	1	0	3	1	1	0	**7**	**1**	**3.87**	1	3
Rodgers	0	0	0	0	0	0	0	1	**0**	**1**	**0**	1	3
Shah	0	0	0	0	0	0	0	0	**0**	**0**	**0**		2
Shunyakov	2	0	3	0	0	0	0	0	**5**	**0**	**4.2**		1
Sleckman	0	0	1	0	1	0	0	0	**2**	**0**	**2**		4
Snider	1	0	3	0	3	0	2	1	**9**	**1**	**4.79**		5
Tiriveedhi	1	0	4	0	2	2	2	0	**9**	**2**	**8.92**		3
Toothaker	0	0	2	0	0	0	0	0	**2**	**0**	**1.36**		2
Tummala	0	0	2	0	2	0	1	0	**5**	**0**	**4.36**		6
Verma	0	0	3	0	3	0	0	0	**6**	**0**	**4.19**		1
Vu	2	0	0	0	0	0	0	0	**2**	**0**	**1.25**		
Total	**54**	**5**	**52**	**10**	**47**	**12**	**30**	**5**	**184**	**32**	**138.24**	**8**	**93**

Top 9 Protocols by Registration

Rank	Protocol	Title	# Registrations	Credits
1.	**A221301**	"Olanzapine for the Prevention of Chemotherapy Induced Nausea and Vomiting (CINV) in Patients Receiving Highly Emetogenic Chemotherapy (HEC): A Randomized, Double-Blind, Placebo-Controlled Trial"	19	19 cc
2.	**GOG-0244**	Lymphedema and Gynecologic Cancer (LEG) Study: Incidence, Risk Factors and Impact in Newly Diagnosed Patients	15	15 cc
3.	**CALGB 80702**	A Phase III trial of 6 versus 12 Treatments of Adjuvant Folfox plus Celecoxib or Placebo for Patients with Resected Stage III Colon Cancer"	8	8.8 rx 2.5 cc
4.	**SWOG S1400**	Phase II/III Biomarker-Driven Master Protocol for Second Line Therapy of Squamous Cell Lung Cancer	8	2.64 rx
5.	**NRG-CC002**	Pre-Operative Assessment and Post-Operative Outcomes of Elderly Women With Gynecologic Cancers	6	6 cc.
6.	**A211201**	Change in Mammographic Density with Metformin Use: A Companion Study to NCIC Study MA.32	4	3 cc
7.	**E1A11**	Randomized Phase III Trial of Bortezomib, LENalidomide and Dexamethasone (VRd) Versus Carfilzomib, Lenalidomide and Dexamethasone (CRd) Followed by Limited or Indefinite DURation Lenalidomide MaintenANCE in Patients with Newly Diagnosed Symptomatic Multiple Myeloma (ENDURANCE)	4	2.2 rx 1.25 cc
8.	**NSABP B-43**	A Phase III Clinical Trial Comparing Trastuzumab Given Concurrently with Radiation Therapy and Radiation Therapy Alone for Women with HER2-Positive Ductal Carcinoma in Situ Resected by Lumpectomy	4	4.2cc
9.	**SWOG S1007 Step 2**	A Phase III Randomized Clinical Trial of Standard Adjuvant Endocrine Therapy +/- Chemotherapy in Patients with 1-3 Positive Nodes, Hormone Receptor-Positive and HER2-Negative Breast Cancer With Recurrence Score (RS) of 25 or Less	4	4.19 rx
10.	**SWOG 0931**	EVERST: Everolimus for Renal Cancer Ensuing Surgical Therapy, A Phase III Study	4	4.52 rx


GY 2014/2015 Treatment Credits
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Credits
4.33
9.17
10.78
18.33
19.31
27.50
28.70
36.67
33.49
45.83
39.03
55.00
46.83
64.17
53.62
73.33
60.96
82.50
65.70
91.67
71.64
100.83
79.41
110.00
Aug
Sept
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
June
July
Months
Cancer Research for the Ozarks
Totals through 7/31/2015
Actual TX Credits
CRO Target TX Credits


GY 2014/2015 Cancer Control
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Credits
8.28
9.17
15.33
18.33
22.48
27.50
30.68
36.67
35.23
45.83
41.48
55.00
47.33
64.17
51.83
73.33
53.83
82.50
55.83
91.67
57.00
100.83
58.33
110.00
Aug
Sept
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
June
July
Month
Cancer Research for the Ozarks
Totals through 07/31/2015
Actual CC Credit
CRO Target CC Credit

Cancer Research for the Ozarks Staff

Jay W. Carlson, DO, *Principal Investigator*

Albert Bonebrake, MD, *Associate Principal Investigator*

Marilyn Bauer, BSN, MEd, MHA, *Director*

Debbie Cane, AA, Office Manager

Cynthia Dievert, Clinical Research Assistant

Sharon Hodge, RN, Research Nurse

Basava Raju, MS, BS, CCRP, Research Coordinator

Rita Ritter, Clinical Research Assistant

Marcia Thompson, BSN, Research Nurse

Kiwi Cone, Regulatory Compliance Coordinator

JoAnn Daigh, RN, Research Nurse

Cancer Research for the Ozarks
has a mission rooted in the spirit of collaboration between CoxHealth and Mercy Springfield.

Inspired by our faith-based call to serve others, we seek to promote the quality of life within the communities we serve by providing innovative cancer research, education, and personal compassionate presence to our patients, family members, and staff.