COMMUNITY CONTRIBUTIONS OF UAB UNIVERSITY-WIDE INTERDISCIPLINARY RESEARCH CENTERS

The text below is derived (with minor editing) from the 2011 UWIRC applications in which each center described its contributions to community outreach since 10/1/2008.

**Center for Aging**

With support from the Jefferson County Office of Senior Citizens' Services, the Center sponsors the Alzheimer Family Program. This program provides educational information for caregivers, health professionals, and others involved in meeting the needs of older adults with Alzheimer's disease. In addition, seven caregiver support groups are regularly offered. Elizabeth Roberts and Elizabeth Hope serve as the coordinators for the Alzheimer Family Program under the leadership of Virginia Wadley, the Director of the Center’s Dementia Care Research Program.

The Center for Aging co-sponsors *New Horizons at UAB*, a program offering formal courses planned by older adult participants and made available throughout the academic year. New Horizons at UAB has about 140 members of retirement age. They meet three mornings per week on the UAB Campus for their regularly scheduled lectures and they also plan group social activities and trips. CFA leaders and affiliated faculty members are often invited to give talks and presentations to local professional groups, churches and not-for-profit organizations.

In February 2010, in partnership with the United Way of Central Alabama, the CFA co-sponsored a Senior Summit to provide a forum for representatives of the university, service providers of older adults programs and leaders of the faith-based community to discuss ways to improve services for older vulnerable adults in the community. Subsequently, funds raised by the Summit were used to fund two demonstration projects that are being conducted by faith-based, community organizations. The Summit Planning group anticipates holding a follow-up conference to provide an opportunity for these projects to be presented and discussed, and for participants to share other successful models for faith-based approaches of meeting the needs of vulnerable older adults.

UAB offers a number of services and specialized clinical programs for older adults. Since 2008, several of these programs have received support as a result of Center for Aging philanthropic efforts including the: Geriatric Clinic; Geriatric Heart Failure Clinic; The Alzheimer Family Program; The Acute Care for the Elderly Program. Major accomplishments in education, community programs and specialty care include:

Christine Ritchie, MD, MSPH, Angela Curtis, PhD and multiple colleagues have worked together to obtain funding for inter-professional geriatric education programs through the Geriatric Education Center from HRSA and from the Donald W. Reynolds Foundation to establish a comprehensive program to improve physician education in Geriatrics. These programs have led to the development and implementation of new curricula not only in medicine, but in nursing, dentistry, rehabilitation, optometry and social work. In addition, the GEC is supporting web-based geriatric educational programming, an annual inter-professional
geriatric education conference, and partnerships with the Alabama Academy of Family Medicine, the Alabama Department of Public Health, and St. Vincent’s East.

Julie Locher, PhD has provided leadership for the Public Policy and Aging Program, a joint venture between the Center for Aging and the Lister Hill Center for Health Policy. In collaboration with AARP Alabama, the Public Policy and Aging Program has sponsored annual conferences featuring leading experts from across the nation and focused on state-of-the-art issues of relevance to regional and national policy makers and program leaders. Topics have included the geriatric health care professional workforce shortages, the impact of the economic downturn on older adults, and hunger among older adults.

Kellie Flood, MD has provided leadership for the development of the Acute Care for the Elderly (ACE) Program for University Hospital and UAB Highlands, helping to improve quality and outcomes of care, while at the same time reducing readmissions and length of hospital stay. The ACE Unit was selected for the UAB Health System Award for the most innovative clinical program in 2010. In addition, Dr. Flood has developed a Geriatric Scholar Program to provide education and career development opportunities for UAB nurses. The ACE Unit was awarded the 2010 most innovative clinical program award by the UAB Health System in 2010, and an abstract describing cost-savings of more than $400,000 due to the program was selected as one of 3 oral presentations at the 2011 American Geriatrics Society Meeting.

**Center for Aids Research**

The CFAR outreach efforts continue to reflect the importance of being HIV informed. The CFAR outreach staff of the 1917 clinic and team of volunteers make presentations, encourage testing for patients and partners and schedule educational and awareness events to a wide variety of groups in venues on campus and throughout the community as detailed below.

**SHAPE (Sexual Health Awareness through Peer Education)** - SHAPE completed its 12th year, actively engaging college students and people living with HIV to provide comprehensive sexual health messages to adolescents and young adults in a safe and comfortable manner. SHAPE trains new educators through a Peer Education course in collaboration with the UAB School of Education and the Office of Service-Learning. Consumers who serve as HIV Educators play the invaluable role of telling their story of living with HIV during the HIV workshop.

**HIV Prevention** - We continue to encounter people who subscribe to the many myths associated with HIV/AIDS. The staff and team of volunteers made HIV/AIDS presentations to a wide variety of groups in venues on campus and throughout the community. We strongly encourage safer sex practices through the distribution of HIV-specific pamphlets and brochures, safer-sex kits (condoms, lube, resources for testing, etc), and skills building workshops. Through our prevention initiatives, efforts are made to reduce and eliminate stigma attached to HIV.
OraQuick Volunteer Counselors - These volunteers are trained to provide the rapid HIV 1/2 Antibody HIV Test including pre and post-test counseling and a plan for risk reduction. In 2009, we added significant volunteers to both the in-house testing team to respond to walk-in testing requests at the clinic and outreach volunteers. OraQuick Volunteer Counselors are extremely dedicated to providing accurate, educational, and compassionate testing and counseling in the community. These trained volunteers are important resource to conduct CFAR research studies such as the NCI-funded CNICS Supplement to study AIDS Malignancies.

Heartsong Retreat – The 18th annual Heartsong Retreat for people living with HIV was held in 2011. The retreat is coordinated by 1917 Clinic staff each year and involves other community leaders and past participants. Applicants who are HIV+ or caregivers from around the state and the Florida panhandle may apply. Fundraising for the retreat allows the clinic to collaborate with the faith community for financial support in exchange for fostering prevention and testing services in congregations.

Patient Advisory Board (PAB) – Since its inception in 1995, the PAB has served to empower fellow patients. The group meets monthly to stay abreast of clinic issues and provide input on a variety of topics, the lunch and learn series and educational events for others living with HIV.

The Community Advisory Board (CAB) for the 1917 Research Clinic - currently has over 25 active members, including clinic research patients, clinic patients, interested members of the community, clinic staff members and investigators, and representation of AIDS service agencies in a five state region. CAB Members provide input into clinical trials 1917 Clinic and stay updated on latest treatment options. The 1917 Research Clinic CAB meets 3-4 times a year, and also meets at least twice a year with members from other CABs in the HIV network at UAB.

Faith Based Initiative – Every effort continues to be made to reach those more endangered or high risk populations for HIV infection/transmission. The African American community in the State of Alabama and the metropolitan Birmingham community continue to reflect statistically what is happening in most urban areas. Statistics from 2010 continue to show that African Americans are the largest segment of our population being tested through our initiatives. In 2002 an initiative was launched here at the 1917 Clinic that strategically explored ways to reach the African American community with HIV prevention messages and HIV testing. In the African American community the most logical place for HIV messages to be given is in faith based institutions.

Center for Biophysical Sciences and Engineering

The CBSE is active in research and development programs across UAB campus and with external collaborators on a variety of high value drug targets. The CBSE also consists of an industry recognized engineering group (AS9100 certification and ISO 9001:2008) for the development of new technology and space flight systems for NASA and other aerospace clients. The CBSE has a long history of contributing to the positive development of our
community with positive economic impacts and educational programs geared toward STEM (Science, Technology, Engineering and Mathematics). The CBSE has contributed to the state and local economy with the spin out of more than 7 different companies over the last 15 years. The CBSE has been awarded and participates in a wide range of industry sponsored research, state and federal grant programs from sponsors such as the NIH, NASA, NSF - Minority Faculty Programs, Alabama EpScor, Alabama Space Grant Consortium. The CBSE collaborates with a host of community organizations that match our educational and outreach goals such as the McWane Science Center, CORD, Alabama Alliance for Minority Programs, Greater Alabama Council for the Boys Scouts of America and others.

**Education /Outreach Contributions to the Community** - Members of the CBSE participate in >25 presentations to middle, high school, college and graduate level students annually. Presentations meant to inform, inspire and encourage youth to enter the fields of science and engineering. Sample of School systems include: Jefferson County, Birmingham, Vestavia, Pelham, Mountain Brook, and Hoover. The CBSE also participates in local scientific and engineering fairs (many times as judges), “teach the teacher” programs, laboratory internships, mentoring networks, distant learning programs (internationally with Italy, Scotland & Portugal), and multiple grants for STEM activities (some with minority post secondary institutions including Alabama A&M Univ, Alabama State Univ, Tuskegee and Miles College. Underserved and minority student populations are a priority for inclusion in all CBSE activities.

CBSE Science faculty and engineers are often invited to give presentations to local civic and philanthropic organizations, multiple boy/girl scout chapters across the city and state, faith based clubs, civic and philanthropic organizations. Recent examples include: Vestavia Hills UMC, Bluff Park UMC, Birmingham Rotary Club, Junior Achievement of Birmingham, Kiwanis, Redstone Club, Birmingham Men’s Club, Bessemer Rotary Club, Energen Leadership Association, Alabama Power, Sunrise Club, Metro Dinner, etc.

Programs and grants that benefit students, high school teachers and increase community educational outreach and workforce development in science and engineering fields-

**NASA Microgravity Research Program** - The CBSE was recently awarded a five year grant (thru 2016) from NASA that includes a specific educational and outreach component designed to inspire and encourage underserved student populations to pursue STEM fields with training in both ground-based and microgravity-based research. This grant will allow the CBSE to engage more students in “hands-on” laboratory experiments and educational seminars on many aspects of life sciences (molecular biology, chemistry, etc.) and fields of engineering. This program specifically targets underserved student populations and allows them access to training/mentorship opportunities with UAB faculty.

**Alabama Space Grant** - CBSE’s recent participation involved more than 200 HS students who attended classes on structural biology and x-ray crystallography (taught by Drs. Ng (UAH) and DeLucas). Five professors, 10 graduate and postdoctoral students and five CBSE engineers were involved. CBSE engineers supported instrument design and implementation of a space flight experiment involving the crystallization of proteins for two space flights
(2008 & 2010) carrying the experiments to/from the International Space Station. Course material was provided, as well as hands on laboratory training. After experiments returned to earth the students participated in the analysis and were required by each school to present on the entire project. The involvement of students and teachers from Birmingham and Huntsville schools, UAB, and UAH demonstrates our ability to establish unique and beneficial community partnerships.

**Calhoun Community College Biotechnology Program** - CBSE sponsors students from their 2-yr program in Biotechnology with access to mentoring/training in molecular biology & biochemistry laboratory skills.

**UAB Graduate Certificate Program in Biotechnology** - CBSE has admitted students for internships at the CBSE since its inception. A member of the CBSE is also on the Internal Advisory Board. This allows students from this graduate program to train formally before entering the workforce with experience in laboratory skills and the intellectual property and marketing aspects of technology development.

**NIH Summer Stipend Program for Local Students and Teachers** - Presently, CBSE has a special NIH Teaching grant (5 R01 GM081799) designed to provide summer stipends for laboratory training for high school and undergraduate students as well as high school teachers. The participants acquire laboratory skills in molecular biology, biochemistry and protein crystallization. CBSE has been highlighted by the NIH website (http://dpcpsi.nih.gov/osc/features/081209.asp).

**Greater Alabama Council for BSA** - In 2011, the CBSE became involved with the Greater Alabama Council for the Boy Scouts of America and Learning for Life, Inc. Beginning with a Keynote Presentation by the CBSE Director at the annual Youth Leadership Conference addressing the audience with a presentation on leadership, perseverance and the importance of education by highlighting his research career at UAB. Dr. DeLucas serves on the Board of Directors for this organization and is currently planning a variety of initiatives with the students through this organization. This annual youth leadership conference is attended by multiple members of the local Alabama legislative congress (DeMarco, Carnes, Farley, Payne, Rogers, and Waggoner), Mayors from Birmingham, Hoover, Fultondale, Pleasant Grove, Pell City and Vestavia Hills, superintendents from each Birmingham school districts, Presidents and Provosts from UAB, University of Montevallo, Jacksonville State, Miles, etc. and dignitaries and CEO’s from Jefferson and Shelby counties.

“**BioTeach**” - CBSE participation (since 1996) in BioTeach which involves a month-long intensive Alabama state-wide teacher education program in biotechnology and molecular biology. Dr. DeLucas’ lectures involve topics such as NASA’s space research program, structural biology, and biotechnology. Participants include both science teachers from inner city schools and in rural regions of Alabama.

“**BioHorizons**” - Local program involving participants from the Birmingham community who attend monthly 2-hour lectures on a variety of topics. CBSE presenting on topics such as Space exploration and the Future of NASA, Biotechnology and Alternative Energy Options.
Alabama Science Teachers Association - CBSE Director active participant and recent keynote speaker at the ASTA 2010 meeting at the McWane Center with topics supporting research careers in Alabama.

Community Outreach and Development Program (CORD) - CBSE participates annually (since 2000) promoting science & teaching students with interactive lectures, mentoring and providing tours of the CBSE.

Career in BioPhysics Summer Research and Workshop Program - CBSE faculty members actively participates with lectures, mentoring and facility access.

McWane Science Center - Dr. DeLucas has provided biochemical laboratory support at McWane Science Center for hands-on learning to community participants.

NASA Explorer Schools in Alabama - CBSE has supported one of only two NASA explorer schools in the State of Alabama through laboratory and faculty guidance for the development of fluid dynamics experiment in the Space Experimental Modules Satchel (SEM). This program, along with NEAT (Network of Educator Astronaut Teachers), covered the design and implementation of a completed flight experiment with NASA Goddard Space Flight Center. Projects in physics and biochemistry in a microgravity environment represent a unique opportunity that the majority of schools could never access without CBSE involvement.

Junior Achievement and KidSpark! - CBSE provides career representatives to these annual events to encourage children in the Birmingham area to pursue math and science education and career paths.

Professional and Economic Contributions of the CBSE to the Community - The professional impact of the CBSE is clearly indicated with designations as the CCC X-Ray Crystallography Shared Facility, and participation in the Southeast Regional Centers for Excellence in Biodefense (SERCEB), The Alabama Structural Biology Consortium and the NIH Centers of Excellence for High-throughput Structural Genomics (SECSG). The Center consists of ~100 employees that work directly on projects supporting CBSE mission and goals. The funding levels of our faculty and in-house members have had an enormous economic impact on this region totaling ~ $300M since 1986. Examples of active civic participation from the CBSE members include participation in the Biotechnology Association of Alabama (founding member), the Alabama Chapter of the Cystic Fibrosis Foundation (BoD), Indian Springs School (BoD), GCA-BSA (BoD), Birmingham Venture Club and Engineering Foundation Council, etc. CBSE representative was a member of the commercialization team for the Ala Science & Technology Roadmap commissioned by Gov. Riley in 2009 and has been a consultant for organizations such as the Birmingham Business Alliance during the creation of the Birmingham Blueprint providing inputs regarding the integration of Innovation-based initiatives for positive economic growth in our community. CBSE has been active in Alabama Launchpad leading a UAB startup company (from SOM) to a 2nd place competition award.
The CBSE is also very entrepreneurial, with discoveries resulting in more than 100 patent submissions since 1986, multiple licenses to industry for a variety of technologies and responsible for the creation of more than seven spin out companies, (two within two years: Soluble Therapeutics (housed at Innovation Depot) and Fuzion Biomedical, Inc). Other CBSE spinouts: BioCryst Pharmaceuticals, Ibex Pharmaceuticals, Diversified Scientific and Vivo BioSciences, Soluble Therapeutics, Inc., and Fuzion Biomedical, were all based on intellectual property developed at the CBSE. These accomplishments support the community and bring a tremendous reputation and economic impact for our city.

**Center for Clinical and Translational Science**

In addition to enrichment opportunities open to community members (e.g., the Forum) and community research efforts such as the Deep South Network for Translational Research, the CCTS has contributed to community outreach through its One Great Community Component. Directed by Max Michael, MD, Dean of the UAB School of Public Health, One Great Community has been involved in several efforts to develop and enhance community partnerships by facilitating collaboration and trust between the community and the biomedical research enterprise. Major efforts of One Great Community are listed and described below.

Community café round table discussions were held in 2009 and 2010 to better identify community perceptions about UAB, biomedical research, and best strategies for balanced partnerships. Major themes were captured and later coded for recurring concepts. Qualitative results were presented in a newsletter format to each participant. Additionally, participants received resource materials that complemented the discussion. Four major observations emerged from the café conversations:

- A pervasive sense of distrust is not as evident as anticipated; UAB’s value to the community is generally recognized, yet the “so what” factor is present.

- UAB is so large as to be unapproachable; there is no single entry point and no single phone number that people feel comfortable using.

- Participation in research is fine and community residents would be interested if it weren’t for UAB being so impregnable (#2).

- People are interested in local access points and/or a central access portal for patients, study participants, visitors, potential students, etc.

One Great Community also conducted a faculty-wide online survey to better understand how universities can be more responsive to the communities they serve. Conclusions indicated that the following were needed:

- an investment of more time in community-based dialogues,

- a bilateral relationship between researchers and the community,
• work to dispel the mistrust of research,
• follow-up through dissemination in a timely and useful way, and
• making sure there was a lasting impact of research on individual and community health.

One Great Community partnered with the McWane Science Center and the UAB Department of Nutrition Sciences to provide an interactive educational experience exploring how nutrition research helps solve important health problems such as obesity and diabetes. This program allowed kids and adults to participate in an overnight “camp-in” at McWane and the program’s curriculum helped bridge the gap of understanding between research and the application of good nutrition habits. UAB masters-level dietetic students helped develop the curriculum, and the program was organized to serve as a continuing internship site for dietetic students. The HC³ initiative is proposed to become a model for other science centers across the country.

Six groups participated in the first challenge: STEP-Up After School Program at East Lake United Methodist Church; DISCO Writing Camp at Cornerstone School in Woodlawn Worship Center Christian Church; Children’s Ministry in Roebuck; Congregations for Public Health, Inc.; West End Cub Scouts; and the North Central Alabama Girl Scouts. Through monthly meetings each of the six groups used $500 provided by HC³ to develop and implement a project that would bring about positive, healthy, and lasting change in their communities. HC³ wrapped up in May with an awards dinner. Each group received prizes ranging from $100 to $1,000 to keep their projects going over the next year. Projects included neighborhood gardens, healthy cookbooks, and community exercise programs. This program was funded by the Community Foundation of Greater Birmingham, the Jefferson County Department of Health, HealthSouth and the UAB Benevolent Fund.

**The Wide World of Research Video**

One Great Community also created and produced a 3-minute video piece for community audiences entitled *The Wide World of Research*. The video was developed to create awareness about research and its impact on daily life. It highlights the positive influence of the research community in regards to health, economics, development, education, social issues, and quality of life. This video is available to be used by or shared with community groups. It can be viewed at [http://www.vimeo.com/16281524](http://www.vimeo.com/16281524).

**Center for Emerging Infections & Emergency Preparedness**

In collaboration with the UAB Student Health, CEIEP staff prepared a “Frequently Asked Questions” (FAQ) sheet related to the influenza pandemic for distribution to students and parents during the 2009/2010 orientation programs.
CEIEP assisted with and participated in an Alabama Department of Public Health sponsored Strategic National Stockpile/City readiness Initiative in May 2009 which included a Point of Distribution (POD) exercise at Bartow arena using students from UAB to evaluate effectiveness of programs to distribute national stockpile drugs such as Tamiflu with a POD system.

The 2009 Annual CEIEP Symposium, held in September 2009 was entitled: Preparing for Pandemic Influenza – Lessons Learned from SARS. It featured two Canadian speakers who led Toronto’s emergency medical response to the SARS outbreak of 2002-2003. Presentations were held at UAB and included a state-wide EMS advisory board meeting where more than 60 EMS agency directors/ managers were in attendance. Dr. Brian Schwartz of Ontario’s Agency for Health Protection and Promotion discussed epidemiologic details related to the outbreak, barriers to response interoperability between hospitals, and infection control protocols implemented by Toronto's health system to contain the outbreak. Peter Macintyre of EMS Toronto discussed the lessons learned by the EMS community regarding managing both routine and "disaster" operations. These presentations were recorded by a professional videographer and posted to the CEIEP’s website.

In late 2009 and early 2010, CEIEP members assisted the Jefferson County Department of Health in designing, printing and collecting a survey related to influenza diagnosis and treatment to parents of school children in the Jefferson County school system.

Center for Information Assurance and Joint Forensic Research

Dr. Solorio is actively involved in outreach activities at UAB that target student populations from elementary school to high school. Examples of these activities include the organization of the yearly UAB Digital Film Festival and the Alabama high school programming contest (also a UAB event). These events target the student community of the greater Birmingham area, and to a lesser extent, statewide. Through these events our goal is to promote a positive attitude toward learning and mastering programming skills and encourage students to pursue degrees in computer related fields. In Spring 2011, we hosted the North American Computational Linguistics Olympiad for high school students (first time at UAB site). This event helps introduce students to the field of computational linguistics, a relevant area of research for information assurance.

Dr. Zhang is actively involved in CIS/UAB outreach efforts including the Alabama High School Programming Contest. Having this annual event hosted at CIS/UAB encourages students to consider a STEM career as a viable and attractive career option, thereby contributing to the development of a stronger science and engineering workforce. In addition, Dr. Zhang has also been participating as a Computer Forensics faculty mentor in UAB Crime Research Experience for Undergraduate students since 2010. This 8-week summer program is designed for undergraduate students interested in pursuing post-graduate degrees in fields such as Criminal Justice, Forensic Science, Computer Science, Sociology, Public Policy, Biology, and Chemistry. The program is funded by the National Science Foundation (grant # SMA-1004953).
Dr. Sloan has participated as follows: D) ³6XULQJ WKH ,QWHUQHW 6DFHULW\$ (6SUHQLQJ, 2009) DQ Rncampus workshop offered in conjunction with the Birmingham field offices of the Federal Bureau of Investigation, to help parents better monitor the online activities of their children.

Dr. Gardner has delivered many public presentations over the past 3 years.

Gary Warner has provided community service through Invited Talks and Lectures. A list of public speaking events is as follows: http://www.cis.uab.edu/forensics/speaking. He led a computer forensics camp in 2010&2011.

Community Service through Media - Informing the Public: We also serve the community by informing them about important security issues and threats via the media. Since October 1, 2008, Gary has appeared in the news nearly one hundred times, including six local television appearances, and national appearances on Fox News and ABC News. At least ten articles have appeared in the Birmingham News, but also in the USA Today, the Washington Post, the San Francisco Chronicle, the Windsor Star, and other major mass market papers. Many computer news stories have been covered in top circulation magazines such as PC World, Computer World, and others. In fall 2010, Gary’s picture was on the cover of the most popular computer security magazine, Secure Computing, with a feature article called, “Bringing Justice.” Links to all of these articles are maintained on our website: http://www.cis.uab.edu/forensics/media.

Community outreach efforts by Computer and Information Sciences includes hosting the Alabama High School Programming Contest and Digital Film Festival each May (as noted above). Since 2005 we host summer camps -- high school - graphics, java, robotics (through 2009), computer forensics (2010, 2011); middle school -- Alice gaming programming in 2011.

High school groups come to the Computer and Information Sciences Department and the Computer Forensics Laboratory for a tour (5-10 times a year); we have had professors visit local high school periodically to talk about computer science and cybercrime research. Justice Sciences hosts a wet-lab forensics camp (“Camp CSI Birmingham”) each summer for high school students (2009-2011).

Center for Metabolic Bone Disease

The Osteoporosis Prevention and Treatment Clinic (Directors: Sarah Morgan, MD, RD, FADA, FCAP and Kenneth Saag, MD, MSc; Member- Jeffrey Curtis, MD, MPH) is perhaps the most visible of the CMBD outreach activities through its operation of the Tone-Your-Bones Program, which stresses the nutritional and exercise components of osteoporosis prevention and treatment. This program provides lunch time classes for patients, a combined nutrition/exercise program (TYBONE Program), and an ongoing exercise class for patients who have completed the TYBone Program, as well as a self-taught web-based interactive educational, which walks individuals through a virtual osteoporosis clinic visit and includes a “Calcium Calculator.” Communication with the Clinic and the Tone-Your- Bones program is facilitated by the well-publicized hotline and website. This together with
the clinic’s “bone spa” concept and other related programs have developed substantial awareness of the issues of osteoporosis as well as patient loyalty. The Clinic continues to arrange free pDXA screenings. Although the Osteoporosis Prevention and Treatment Clinic led a very active osteoporosis screening program at shopping centers, churches, etc., from 1998 to 2005, this has been curtailed due to the common availability of DXA scanning in physician’s offices. CMBD investigators also participate in community outreach by participating in studies that focus on patients that are typically underrepresented. For example, Dr. Curtis is examining the incidence, risk factors, and outcomes related to osteoporosis, with an emphasis on African Americans and men. Although typically at lower risk for fractures than Caucasian women, African Americans and men suffer greater post-fracture morbidity and mortality. Dr. Gower has been investigating the effects of exercise and diet on body composition in African-American girls and women as well as insulin sensitivity and beta cell function, both in terms of basic physiology and the response to consumption of defined diets, for more than 15 years.

A major outreach initiative that came to fruition in 2010 was the establishment of the Bone Dysplasia and Connective Tissue Disorder Clinic for Adults and Children (Director: Maria L. Descartes, MD). This was formed, in large part, in response to the lobbying by adults, and parents of children, with these diseases who found the lack of such a clinic in the Southeast a barrier to effective care. They also recognized the need for a team approach that would provide an improved chance of a definitive diagnoses, appropriate long-term follow-up, and information sharing regarding strategies for age-appropriate management of the diseases. This multidisciplinary clinic was originally scheduled once monthly but due to patient demand now meets once a week. Patients come from Mississippi, Georgia, Tennessee and Florida as well as Alabama. Patients can make appointments directly or through physician referral. It provides diagnosis, treatment, and care for individuals with abnormalities of skeletal growth, bone density, and joint flexibility and strength. It interacts with specialists to provide or coordinate care for patients including surgery, primary care, cardiology, ophthalmology and orthopedics. The clinic is working closely with local and national support groups to obtain input regarding the needs of patients and families living with these disorders. A bimonthly support group for patients with Ehlers-Danlos has already been established. In October 2011, this Clinic will host a symposium that will include international as well as local experts.

The CMBD also is active in disseminating information to the general public, health care professionals and the biomedical research community through its communications services, which include a Newsletter, a website (http://cmbd.path.uab.edu/home.html) (Please note that the CMBD is currently modernizing its website by working with the UAB Web Communication staff in designing a website that is compatible with that of UAB and the School of Medicine (http://medicine.uab.edu/cmbd/) and a newly launched Facebook page. Thus, information regarding the CMBD is now more effectively disseminated.

Center for Outcomes & Effectiveness Research & Education

Partnerships with State and Local Agencies. COERE members have developed partnerships with Alabama Medicaid, the Alabama Department of Public Health, Alabama Quality
Assurance Foundation, and the Jefferson County Department of Health. The partnership with Alabama Medicaid focused on studying their claims data and evaluating their information technology innovations. A joint collaboration with Alabama Medicaid and Alabama Department of Public Health led to an examination of their Family Planning Waiver Demonstration. Work with Alabama Medicaid and the Alabama Nursing Home Association informed the Alabama Long Term Care Task Force in setting policies with respect to home and community based care. In Birmingham, COERE members have outpatient clinics at Cooper Green Hospital and participated in the interdisciplinary Good Health Program including a cardiovascular risk factors screening program.

Community based Seminars and Meetings. COERE members lead lectures to support groups and state chapters on scientific advancements. This includes the work of UAB’s Continuing Medical Education (CME) where M. Safford (Assistant Dean) oversees the CME’s community outreach through the Deep South CME Network, offering monthly free CME to over 1,100 network physicians in Alabama and Mississippi. COERE members also participate in community based seminars and meetings that look for community feedback on assets and needs and provide information on disease prevention and treatment. An example of the former is meetings convened by the Lister Hill Center for Health Policy in cooperation with AARP to frame and discuss aging policy issues. Two examples of the latter are: 1) supervising community health educators in training community health advisors on cancer awareness and 2) participation in the Healthy Congregations Healthy Communities Study that delivered lectures on cardiovascular disease and cancer screenings at local African-American churches.

Community based Research Projects at Local, State and National level. COERE investigators work closely with community organizations and liaisons to implement studies. In the Birmingham area, COERE investigators have a partnership with Cooper Green Hospital to study heart failure patients, improve diabetes outcomes, and improve cultural competence. They also engage communities served by Birmingham area fire and emergency medical services agencies for a project focused on cardiac arrest and major trauma resuscitation. In partnerships with area schools, COERE investigators conducted a project aimed at increasing hand sanitizer use to prevent asthma (Birmingham) and a pilot study that engaged adolescents in physical activity and healthy eating to prevent obesity (Chelsea Middle Schools). At the State level, an example is projects conducted in Alabama’s Black Belt (e.g. Encourage projects that train peer community health advisors to improve diabetes outcomes, PI: M Safford; and Reach Up and Out that aims to further reduce breast and cervical cancer disparities between white and African American women, PIs: I Scarinci and M Fouad). W Demark- Wahnefried has partnered with Master Gardeners from the Cooperative Extension to improve physical functioning in cancer survivors and M. Martin has a rural based project looking at improving the quality of life in cancer survivors. M Kilgore, J Curtis, and K Saag have worked closely with the statewide Alacare Home Health and Hospice on a project to improve osteoporosis care for patients with fractures. At the National level, COERE investigators have partnered with organizations to increase osteoporosis testing and treatment in health systems including Kaiser Permanente Georgia and Kaiser Permanente Northwest, and pharmacy benefits managers like Medco (a national pharmacy benefit manager).
Serve in Positions of Leadership. COERE members have a history of serving in leadership roles for various national, state, and local community agencies. Current examples include: **D Arnett** (President, American Heart Association); **E Berner** (Member, Board of Directors of the American Medical Informatics Association; Member, Technical Expert Panel, Clinical Decision Support Initiative, AHRQ); **C Lewis** (Past President, American Heart Association Council on Epidemiology and Prevention); **J Locher** (Member, Institute of Medicine’s Planning Committee for A Workshop on Nutrition and Healthy Aging in the Community; Member, AARP Drive to End Hunger Researcher Roundtable; Member, Centers for Disease Control (CDC) Healthy Aging Nutrition Workgroup); **K Meneses** (Member, National Cancer Advisory Board (Presidential appointment)); **C Ritchie** (Member, Board of the American Academy of Hospice and Palliative Medicine; Member, American Geriatrics Society Panel on the Clinical Management of People with Multiple Morbidities); **K Saag** (FDA Arthritis Advisory Board; Board of Trustees, National Osteoporosis Foundation; Chair, Quality of Care Committee for the American College of Rheumatology); **H Wang** (Member-at-large, Board of Directors, National Association of EMS Physicians); and **L Wilson** (Chair, Pan American Nursing & Midwifery Collaborating Centers Network, Executive Director, Network for Child Health Nursing in the Americas).

**Center for the Study of Community Health**

CSCH community partners provide opportunities for faculty engagement in CBPR and translational research, student engagement in service learning, and implementation of best practice health promotion and disease prevention initiatives. The following are major community outreach activities.

**WCACHIL** – Community capacity built through WCACHIL includes over 100 CHA volunteers throughout the Black Belt, knowledgeable in community organization, risk factors for heart disease and diabetes, best practice interventions for those risk factors, survey research, research ethics, grant writing, and how to establish a 501c3. In 2002, WCACHIL founded the **Black Belt Institute**, an annual one-day symposium focused on implications of local and national research findings and best practice opportunities that could impact health issues identified by WCACHIL and the communities they serve. Annual attendance of approximately 100 includes Community Health Workers, professionals, and lay community members with an interest in health issues: 6th Annual Institute: Building Healthy Communities, 7th Annual Institute: Healthy Families in Healthy Communities, 8th Annual Institute: Successful Parenting for Healthy Communities.

**CPH** – Congregations for Public Health serves some of Birmingham’s oldest and poorest neighborhoods, with poverty ranging from 44.2% to 68.8%. CPH addresses public health concerns to eliminate disparities in health, education, and social and economic well-being for residents living in neighborhoods surrounding each church. Since its inception, and in addition to its unfunded activities, CPH has been awarded over $400,000 in local, regional, and national grants and contracts, from federal agencies (HHS/Office of Minority Health), health departments (ADPH, JCDH), and private foundations (Lance Armstrong Foundation, Komen for the Cure), to implement service and research projects and to increase/expand its capacity to act as a partner in community –based
research and outreach activities. UAB collaborators include faculty from the Schools of Public Health, Nursing, Medicine (Preventive Medicine), Optometry, and Arts and Sciences (Sociology & Social Work), the Lister Hill Library, and the CCTS. Community collaborators include Jefferson County Department of Health, Cooper Green Mercy Hospital, the United Way of Central Alabama, American Heart Association, American Lung Association, American Cancer Society, and other faith organizations. Other institutional collaborators include Auburn University, Alabama Cooperative Extension System, the University of Maryland and The Johns Hopkins University. CPH projects include interventions to prevent smoking and cancer, encourage early detection or prevention of cancer; support cancer survivors; encourage heart health and stroke prevention; diabetes prevention and medical and dietary compliance; better nutrition, physical activity, prevention of obesity; and web-based health information and health literacy. CPH is an acknowledged community participant in the development of Body and Soul, evidence based dietary intervention designed for and conducted through African-American churches. In 2010 CPH revived its role to further develop the model in Jefferson County as the foundation of Health Ministry introduced to its developing faith network.

Community Public Health Certificate Program – Begun in 2005 in collaboration with Congregations for Public Health, the Ministerial Public Health Certificate Program offered through Birmingham-Easonian Baptist Bible College provides a mechanism for students to learn about public health and role clergy and other church leaders can play in addressing disease prevention and health promotion from within the congregations and communities they serve. A multidisciplinary group of public health professionals provide practical tools, information, and guidance for use to provide health messages and support during worship, health ministry, and ministering to individuals and families. The program is a one-year course, offered in two 12-week academic semesters. Approximately 130 theology students have participated in the certificate program.

One Great Community (CCTS) - One Great Community (OGC), the community engagement component for the Center for Clinical and Translational Science (CCTS), has developed several initiatives to improve and enhance the relationships between the biomedical enterprises at UAB and community groups and representatives. In order to improve relationships, community-based research seeks to identify and build on strengths, resources, and relationships that exist within communities to address their communal health concerns.

CPPW – The Jefferson County CPPW aims to prevent tobacco use and obesity in Jefferson County, Alabama through a number of health initiatives aimed at achieving policy changes in these areas. Focus areas include smoke free policies at workplaces, bars, and restaurants; tobacco free campuses; tobacco retail warnings; smoking cessation support; tobacco pricing strategies; Smart Growth land use policies; access to fresh produce at food pantries; food deserts; child care regulations; school food policies and procurement; cafeteria nutrition training; after school wellness; and weight management support. The CSCH Evaluation Team is conducting an overall programmatic evaluation of the CPPW and has provided technical assistance in the form of logic mapping for each of the initiatives, developing evaluation instruments for program events and activities, data collection, entry, analysis, and reporting.
Jefferson County Community Participation Board - Members of the Jefferson County Community Participation Board represent a broad cross section of the urban community including health, social service and education agencies, civic and neighborhood organizations, city and county government, academic researchers, student leaders, judicial systems, and religious leaders. They set the stage for long term partnerships that demonstrate how communities and researchers can work together effectively to gain and translate prevention and disease control knowledge. They work with the Center in designing and implementing relevant research initiatives and represent the Center on the National Community Committee of the CDC Prevention Research Center Program. Both Community Health Scholar awards for 2011 were designed with input from the JCCPB and address needs identified by the community.

Community Health Scholars Pilot Grant Program - The Community Health Scholars initiative is a pilot grant program to encourage and facilitate community based participatory research by UAB faculty from any discipline. Community Health Scholars receive funding for one-year projects that address important health and public health issues of direct relevance to local Birmingham communities. An established community partner organization must actively participate in the genesis, development/design, implementation, and evaluation of the project. The Center has funded 8 Community Health Scholar Awards totaling over a quarter of a million dollars since 2008 to conduct community based participatory research projects. Junior faculty representing 6 schools and 8 departments from across campus have partnered with 16 community agencies to plan and conduct their research. Partner agencies sharing in the awards include Planned Parenthood, Inc.; Girls Inc. of Central Alabama; Five Points West Business Association; Gateway, Inc.; Triumph Services; Glenwood, Inc.; Bama Rides (an online community of motorcycle riders); and 31 schools from 9 local school systems: Bessemer, Birmingham City, Fairfield, Hoover, Jefferson County, Mountain Brook, Shelby County, Tarrant, and Vestavia.

Community Council - In February 2011, the OGC Community Council created written requirements for OGC. The original council consisted of 12 members primarily comprised of UAB faculty and administrators. Based on recommendations from Shelia Tyson, the Birmingham Citizens Advisory Board President, 10 community leaders were added to the Council in March 2011. Each Council member participated in a review and comment process for the bylaws. The documents was approved and accepted in May 2011. Twenty-seven (27) individual now make up the OGC Community Council with 10 representing UAB and 17 representing different community sectors (neighborhood presidents, business owners, faith-based leaders, etc.).

Center for Women's Reproductive Health

Community outreach and partnerships are based on our 35-year history of improving pregnancy outcomes and providing care for low-income women of Alabama. The CWRH works with the Maternal and Child Health Division of the Alabama Department of Public Health (ADPH), and provides support and conference space for the Community Outreach Coordinator. Space is also provided for the Colposcopy clinic, funded in part by a grant from
the ADPH, to provide care for low income women with abnormal pap screening. Through these partnerships, we provide a series of patient education and outreach programs, focusing on parenting skills, family planning, childbirth education, cancer screening, and STD education.

CRWH faculty have a 25 year history of grant funding from the ADPH and the Alabama Medicaid Agency to manage the Regionalized Perinatal System for Alabama. This includes insuring ongoing alignment of care practices with national standards and guidelines, assessment and maintenance of maternal and newborn transport mechanisms, and statewide quality assurance.

The “Grace Clinic” was developed by Dr. Jacqueline Feldman (Psychiatry, SOM). HSF GEF and March of Dimes Birth Defects Foundation funding initially supported this program of screening and intervention for perinatal depression. Women in Alabama Medicaid Obstetric District V are screened for depression during and after pregnancy. The Grace Clinic is now an established and unique UAB Women’s Reproductive Health resource.

**Civitan International Research Center**

The CIRC has a long history of community partnership and participates on state and regional boards and advisory committees. We maintain contracts with state agencies and community organizations to provide technical assistance and professional leadership for non-profit organizations and support groups. Examples of contracted activities include: provision of therapy services for Partlow Developmental Center; early intervention services with the Alabama Department of Rehabilitation Services EI program; Project Heroes which provides care for foster children with developmental disabilities; psychologist credentialing for the Alabama Department of Human Resources; a program evaluation project with Lakeshore Foundation for their injured military programs.

Technical assistance activities have included: consultation with Lakeshore Foundation on their research initiative in the area of physical disabilities; Pipeline training program to promote interest in MCH public health careers among Alabama State University students who are from under-represented minority groups.

The Civitan Sparks Clinic faculty hold memberships on the state advisory committee for the Governor’s Office on Disability and the Alabama Council on Developmental Disabilities, along with other state and national committees. Many staff members are in leadership positions in their state professional organizations for specific disciplines such as social work and occupational therapy.

Additionally, the CIRC works in collaboration with other organizations on workshops and conferences such as the yearly Alabama ADHD Conference, the Autism Conference, the Early Intervention and Preschool Conference and DD Conference to name a few. Members of our faculty initiated the state Autism Research Consortium whose goal is to further collaborative efforts for research in the state and nationally.
In April 2010 the “Research Civitan Club” was chartered as a new Civitan International club to capitalize on the community of scientists, educators and employees at the CIRC and in the local Birmingham area to educate the public on research initiatives in developmental disabilities through educational programs and hands on community service projects. The club has partnered with Aaron’s Staff, a Pelham, Alabama organization providing respite care for families with children with developmental disabilities. In addition, the club has a partnership with the Southeastern Rett Syndrome Alliance, a parent-led organization for families affected by Rett syndrome. The club has also volunteered at events such as the Dixie Divas 2nd Annual Revvin’4Research Poker Run for the Breast Cancer Research Foundation of Alabama and the Ride for Rett Syndrome. The Research Civitan Club currently has a membership of 45 faculty, postdocs, graduate students and family members.

**Comprehensive Arthritis, Musculoskeletal and Autoimmunity Center**

The Comprehensive Arthritis, Musculoskeletal and Autoimmunity Center has a long-standing commitment to its constituent communities, -- professional associations, voluntary health agencies and patient groups. Center members serve on Study Sections and Review Groups (Bridges, Curtis, Edberg, Kaslow, Kimberly, Saag) and in a number of leadership positions in the American College of Rheumatology (e.g., Saag – ACR Treatment Guidelines), the Federation of Clinical Immunology Societies (FOCiS; Kimberly – FCE Director), Arthritis Foundation (Bridges, Kimberly), and Alliance for Lupus Research (Kimberly – founding member, SAB). The Center has supported local and regional fund raising through ‘walks’, ‘runs’ and educational presentations.

The Center is especially proud to have been part of the recent effort to recruit Drs. Randy Cron and Tim Beukelman to the Pediatric Rheumatology Division in the UAB Department of Pediatrics (SOM), newly established in 2007. This effort, in collaboration with the Arthritis Foundation-Alabama Chapter, the School of Medicine and Children’s Hospital, has enabled access and care to help prevent the severe disability caused by untreated juvenile arthritis, one of the most common chronic illnesses in children. It has provided a long term strategy for medical staffing of Camp MASH – the AF sponsored summer camp for children with arthritis and other musculoskeletal diseases. With over 6,000 children in Alabama with juvenile arthritis and a severe shortage of specialists nationwide (fewer than 200), both the need and the challenge of recruiting pediatric rheumatologists to UAB is apparent. Through space adjacencies, shared meetings/conferences and a vibrant environment in scholarship, the Center continues to assist in meeting that challenge. With the addition of Weiser, Lowe and Stoll in the last three years, the Pediatric Rheumatology Division has continued to grow.

**Comprehensive Cancer Center**

**Deep South Network for Cancer Control:**

The Cancer Center received its second five years of funding of over $6.2 million for the Deep South Network for Cancer Control, one of 25 community network programs funded by the NCI to build community partnerships to eliminate cancer health disparities in Alabama and Mississippi. We have established Community Network Partnerships in all twenty-two of our
targeted counties in underserved areas of Alabama and Mississippi (Black Belt and Delta Regions). These County-level Partnerships include over 341 trained Community Health Advisors and 350 local Community Partners including health care facilities, local government, educators, and community-based organizations. The Partnerships have conducted over 336 community educational activities reaching over 200,000 individuals. The impact of this program is demonstrated by reduction in Medicare mammography screening rate disparities between white and black women in our targeted counties from 17% to 0%.

**Patient Support Groups:** UAB CCC has 11 support groups: 1) TOUCH, 2) Look Good Feel Better at The Kirklin Clinic, 3) Look Good Feel Better at UAB Medical West, 4) New Beginnings, 5) Young Survivors of Breast Cancer, 6) US Too/Men to Man, 7) Brain Buddies, 8) Gynecological Cancer Support Group, 9) Leukemia & Lymphoma Support Group, 10) Orthopedic Cancer Support Group, and 11) Radiation Oncology Support Group. In January 2008, UAB added an American Cancer Society Patient Navigator as a resource.

**Patient and Community Education:** The overall objective of our 2010-11 educational programming is to provide audience-appropriate healthcare information to oncology patients, survivors, families and caregivers designed to assist them with making appropriate health care decisions based on their personal needs. It is also intended to increase awareness of the cancer education programming, services and resources that are available though the UAB Comprehensive Cancer Center to patients and their caregivers during the cancer experience. Our programs included:

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<tr>
<th>Breast Cancer 101</th>
<th>Managing Depression</th>
<th>Spirituality and Cancer</th>
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<tr>
<td>Financial Resources for People Living with Cancer</td>
<td>The Basics of Health Insurance: What Every Cancer Patient Needs to Know</td>
<td>Navigating the System – Cancer Care at UAB</td>
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<td>Demystifying Clinical Trials and Cancer Terms</td>
<td>Managing the Side Effects of Chemotherapy</td>
<td>Stress and Cancer: What Every Patient Needs to Know</td>
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<td>Bladder Cancer Resources</td>
<td>Nutrition for the Cancer Patient</td>
<td>The Impact of Cancer on the Family</td>
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<tr>
<td>Talking to Your Doctor About Cancer Health Literacy</td>
<td>Advances in the Diagnosis and Surgical Treatment of Patients with Breast Cancer</td>
<td>Stress: Tips and Tools for Management and Prevention</td>
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**Oncology Nursing Symposium:** The objective of this program was to promote awareness of the cancer services available at UAB that support oncology patient care. Targeted audience includes: oncology nurses and clinicians. Programs specific to this purpose were: “An Overview of the UAB Comprehensive Cancer Center”, presented by Michael Bertram, PhD, and “Community Outreach Efforts”, presented by Claudia Hardy, MPA.

**NCI Cancer Patient Educators 2011 Survivorship Series:** In collaboration with the National Cancer Institute, LiveSTRONG, American Cancer Society, Intercultural Cancer Council, Living Beyond Breast Cancer and the National Coalition of Cancer Survivorship, the UAB Comprehensive Cancer Center was able to offer patients a free, telephone workshop as a four-part series.
Community Connections: The Office of Development and Community Relations is actively involved in the larger cancer community. In addition to hosting the Community Roundtable, a consortium of cancer advocacy organizations, to increase awareness of educational and community events to promote our common mission, the Senior Director of Development and Community Relations regularly represents the UAB Comprehensive Cancer Center at the Alabama Comprehensive Cancer Control Coalition meetings. She also serves on the Mid-South/Jefferson/Shelby Board of Directors for the American Cancer Society. The Director of Communications serves on the Communications Committee for the Mid-South/Jefferson/Shelby Division of the American Cancer Society.

Comprehensive Diabetes Center

Multidisciplinary Comprehensive Diabetes Clinic (MCDC)

This specialty diabetes clinic (MCDC) run by Dr. Fernando Ovalle, one of the Associate Directors of the UCDC provides comprehensive diabetes care by multiple disciplines (e.g. diabetologist, nephrologist, ophthalmologist) in one visit and is therefore also often referred to as “One Stop Clinic”. This not only enhances the interactions between the physicians involved to design a cohesive treatment plan, but also enables patients from less well served areas to obtain state-of-the-art diabetes care without having to commit to multiple travels which they may not be able to afford for scheduling, financial or health issues.

The UCDC also is actively collaborating with the ADA and JDRF in their outreach efforts and for example participated in the ADA Diabetes Day including stands at the Galleria and a phone bank. UCDC members are also participating in the yearly Diabetes Walks for JDRF and ADA and the UCDC is currently organizing UAB-wide teams for this fall.

The UCDC also has ongoing collaborations with the Minority Health Disparities Research Center and has been involved in implementing “Healthy Happy Kids” a program to reduce childhood obesity by improving nutritional choices and physical activity among elementary school Hispanic children. In addition, UCDC members are contributing their time to the newly opened HealthSmart downtown that offers free health evaluation, advice and education. In fact, the UCDC Director, gave the first “lunch and learn” seminar to community members at HealthSmart.

The Citizens Advisory Board helps solidify the partnership between UCDC members and the city leadership and encourages members to serve as Community Health Advisors. This partnership enhances city-wide information dissemination efforts.

For the Lawson State Wellness Day, UCDC members collaborated with a community college to provide information on diabetes and healthy living. In addition, Community Engagement Core members participate in numerous events and provide information about diabetes prevention and control to over 8500 individuals.
The UCDC has also started a collaboration with Human Resources to establish a UAB Employee Wellness Program and improve diabetes treatment and prevention. Finally, the UCDC website provides general diabetes information and links to community resources.

**Comprehensive Kidney Disease Research Center**

The NRTC membership is active in the community both at the regional and national levels through relationships with the National Kidney Foundation (NKF) and the Alabama Kidney Foundation (AKF). Specific examples include: (a) service on Research Review Committees for the National Kidney Foundation and active participation in the NKF annual meetings, (b) active participation and fund-raising by Center members in an annual luncheon and Walkathon event sponsored by the AKF, (c) participation in the Kidney Early Evaluation Program (KEEP) of the NKF and participation in World Kidney Day (March 10) for the International Society of Nephrology, (d) frequent interviews and press releases through UAB Media Relations on issues related to new research discoveries, new clinical initiatives and availability of novel therapeutic interventions for patients with kidney disease, (e) Center members with expertise in kidney transplantation frequently visit physician practice groups in neighboring towns to give updates on kidney transplantation. The group also sponsors an annual meeting for physicians taking care of kidney disease patients entitled “An Update in Transplantation” held in Birmingham and surrounding cities. Dr. Gaston has edited a 9-part series entitled "Transplant Nephrology for the Community Nephrologist" distributed nationwide and has also edited a book entitled "Living Donor Kidney Transplantation" which was published by Taylor & Francis, London.

NRTC members are active in national societies whose missions serve the professional community. Both Drs. Gaston and Mannon have leadership positions in the prestigious American Society of Transplantation (AST) (http://www.a-s-t.org/). Presently, Dr. Gaston is the President of AST and Dr. Mannon is President-Elect. Dr. Agarwal will serve on the Program Committee of the American Society of Nephrology (ASN) in 2012 and will chair this committee in 2013.

The NRTC has been active in lay community outreach and education. For example, the Division of Nephrology and the NRTC maintain a CKD clinic that is designed not only for patient care but also especially for education regarding CKD and renal replacement therapy. The clinic also provides lay education to increase public awareness of kidney disease and diabetes. Members of the NRTC (Drs. Suzanne Bergman and Zipporah Krishnasami) raised money and reached out to the Haiti community to provide medical assistance following a catastrophic earthquake that wreaked havoc on this tiny Caribbean country (http://main.uab.edu/Sites/reporter/articles/75781/). NRTC member, Dr. Denyse Thornley-Brown, is working with faculty of the SOPH (Dr. Andy Ruks, Department of Health Care Organization) to highlight issues related to the medical care of undocumented aliens and is closely involved in providing medical care of this vulnerable population (http://www.al.com/birminghamnews/stories/index.ssf?/base/news/1226826931175590.xml&coll=2). The NRTC has worked with the community to establish a Nephrogenic Systemic Fibrosis Support Group in Alabama. This past year, for World Kidney Day (http://www.worldkidneyday.org/), Dr. Agarwal visited the U.S. Capitol and discussed the
growing epidemic of CKD with Alabama congressmen including Senators Richard C. Shelby and Jeff Sessions and Representative Spencer Bachus. In March of 2012, the NRTC has again provided support for World Kidney Day by organizing the WKD Fair, which will have several health booths focusing on: CKD risk assessment/screening and counseling, diet, exercise, tobacco cessation, and renal transplantation, in addition to other family-oriented activities, such as a “yard sale,” a vendor fair, a children’s corner with fun activities, and a concert featuring local artists.

**Comprehensive Neuroscience Center**

The CNC has made contributions to the community though the largely CNC funded Brain Awareness Week. Brain Awareness Week is a Society for Neuroscience inspirational global campaign where people with a passion for Neuroscience Research go out to the community and teach them about the brain. In Birmingham, Brain Awareness Week occurs at the McWane Science Center sometime in Mid-March – usually coinciding with local schools spring break. Neuroscience students are primarily responsible for this public outreach since they are the individuals involved in the planning and then teaching during the event. The CNC also hosts a website where individuals both around campus and within the community can go to learn about Neuroscience happenings in the community. The CNC has also played an active role in promoting research and the UWIRC program within the UAB community by playing key roles in UWIRC related events and projects (an example is the highly successful 2011 Research Core Day).

**Gregory Fleming James Cystic Fibrosis Research Center**

Center faculty present the most recent advances in translational CF research at meetings organized by community networks of CF parents (e.g., Annual Parent Education Day, CF support groups for patients and families, CF Mother’s Day Tea). The Center also provides tours of facilities and on-site presentations to members of the local CF community, including interested students and CF families. The CFRC enhances institutional visibility in the community through public awareness of its research programs. For example, basic science in the CF Center has been featured in nationally televised segments. Center research has also been publicized by local and national newspapers and radio. For example, working with the UAB CTSA, Dr. Sorscher made a presentation last year to inform the lay community regarding scientific progress in CF. The two-hour session was advertised on radio and other local news media, and was very well-received by several hundred attendees, including community members and family members of those with CF. In November, 2010, Drs. Sorscher and Rowe provided an international (live) webcast sponsored by the CFF entitled “Research and the Future of CF Care” and fielded questions from on-line listeners. More than 1,000 CF patients, families and other interested parties from around the world registered and participated in this community outreach event. In addition, during the current UWIRC funding cycle, Dr. Sorscher was interviewed and quoted in *Science* regarding a new CF porcine model. Dr. Rowe was similarly featured in a review of CF translational research published in *Nature Medicine*. As noted above, the Center is also active in UAB programs that train local high school students and introduce state high school teachers to progress in
basic science (e.g., the BioTeach initiative in the UAB College of Arts and Sciences). The planned curriculum for BioTeach typically includes multiple CF Center faculty.

The Children's Rehabilitation Service (CRS) (supported by the Department of Rehabilitation Services, State of Alabama), provides treatment and assistance to children with special health needs, including CF. Dr. Lyrene and colleagues in Pediatrics have maintained a partnership with CRS to sponsor the CF Clinic at UAB that is available to all CF patients in the state. Dr. Gutierrez officially represents the UAB Department of Pediatrics at the Children's Hospital and examines existing partnerships between UAB, the Children's Hospital, and CRS. These meetings are designed to strengthen the statewide system of care for children with special health needs. The CF clinical program also sponsors an annual interdisciplinary educational meeting for health providers. The audience includes nurses, social workers, dieticians, respiratory therapists, teachers, child life specialists and chaplains from UAB and Children’s Hospital as well as CRS workers from all Alabama CRS districts. The CF Center has also arranged local training with regard to CF newborn screening across the state through both on-site and televised presentations, and at the American Academy of Pediatrics Alabama Chapter annual meetings.

The CFRC enjoys collaboration with other multidisciplinary Centers on our campus. For example, in addition to extensive scientific interaction with Dr. DeLucas and colleagues (Section 1c), Dr. Sorscher serves as a member of the Advisory Board for the Center for Biophysical Sciences and Engineering (CBSE, DeLucas (SOO)), and jointly recruited an outstanding crystallographer (Dr. S. Aller) to both Centers last year. Dr. Sorscher also advised the Comprehensive Diabetes Center Board during the current UWIRC cycle. Based on his experience in the area of CF drug discovery, Dr. Sorscher and the CFRC contributed to a major component of the NIH CTSA (Guay-Woodford, PI). Together with the Center for Metabolic Bone Disease, the CFRC recently recruited Dr. M. Stalvey (an authority regarding CF osteopenia) from the University of Massachusetts. Our CF Center also provides financial support and collaborates closely with the Imaging Core (Keyser, SOO). CF Center technology led to a cancer project funded by the NCI (approx. $10 million over the past several years, (E. Sorscher and W. Parker, PIs)). The latter project has been featured as an important example of drug discovery by the UAB Cancer Center.

**Howell and Elizabeth Heflin Center for Genomic Sciences**

The Heflin Center does not in itself include clinics, but it does interact with a number of clinics to support clinical research programs, including ongoing efforts with the Neurofibromatosis Clinic and the Tuberous Sclerosis Clinic. The Heflin Center has also interacted with the Neurogenetics Clinic and the Sparks Clinics; both of these provide care for individuals with neurodevelopmental disorders, which have been the subject of genomic studies for copy number changes by cytogenomic array analysis, and will be the source of some patient samples for whole genome screening.

**Minority Health and Health Disparities Research Center**
The MHRC has established a strong Community Outreach Program, which 1) promotes translational research by ensuring the delivery of new knowledge to the community; 2) facilitates the feedback of the community to the researchers and scientists; 2) promotes UAB in the community, and 3) supports the University’s research, teaching, and service missions through community outreach. These objectives are being accomplished with the support of a 24-member Community Advisory Board, chaired by Hon. Helen Shores-Lee, Tenth Judicial Circuit – Birmingham, AL. The board educates the Center leadership on the health care needs of the community, advises on priorities, and serves as a liaison with community organizations and public and private entities. The Community Outreach Program is also supported by a Young Professionals Board, chaired by Donald Watkins, Jr. (2008–09) and Corey Hartman, MD (2010–11). The board promotes the research mission of MHRC among young professionals and raises funds to support community outreach activities, especially initiatives targeting obesity in minority and underserved children. With these two boards’ help, the MHRC has established and maintains 75 active partnerships with state, local, and community-based organizations.

As a result, the MHRC was able to: 1) initiate ground-breaking work in the social and economic determinants of health in Fairfield and Forestdale, Alabama, through the NIMHD-funded ARRA project “GO-ing Forward”; 2) reduce disparities in mammography screening between African American and white women by 35% (data related to this project published in Fouad M et al. Targeted Intervention Strategies to Increase and Maintain Mammography Utilization among African American women. Am J Public Health, 100(12), Dec 2010, 2526-31) through the REACH 2010, a demonstration project funded by the CDC that utilized community-based participatory approach to disseminate an evidence-based intervention; 3) implement the same intervention in 6 Mid-South states through the CDC-funded Centers for Excellence in the Elimination of Disparities (CEED); 4) train more than 500 Community Health Advisors (CHAs) in collaboration with CCC and DRTC to support UAB’s community-based research project; and 5) engage 60,000 community members in 12 Alabama counties in health education and promotion activities, some of which are highlighted below.

With the sponsorship of the Young Professional Board, the MHRC implemented the Healthy Happy Kids program in inner-city schools to prevent and reduce childhood obesity in minority and underserved children. With the approval of the Birmingham School Board, the program was conducted in 9 Birmingham City Schools and reached 500 children, 50 of them Hispanics.

On recommendation by the community coalition, the MHRC developed the Teen program in Wenonah High School in Bessemer and Woodlawn High School, which fosters positive development to prevent risky health behaviors among youth. There are currently two active projects. The Teen Community Health Advisors (CHAs) program is training high-school students to be health advisors. To date, 15 teen CHAs have been trained and activated in a local Birmingham school. Health-e-Teen works with additional students to develop an innovative interactive health dissemination platform that integrates website and text-messaging to provide reproductive health education.
The MHRC also implemented the *WALK Feel Alive!* program for physical activity in inner-city low-income areas. To date, the program has enrolled and maintains 120 teams with a total of 3,600 walkers. The MHRC provides training and resources to the team leaders in leader training sessions as well as data entry of steps on the WALK website. A partnership with the Birmingham Park and Recreation Centers (18 sites) was established to bring the WALK program to local Park and Recreation sites. This partnership will help sustain and disseminate the program and motivate walkers by giving them a support system within their communities.

In partnership with the UAB Schools of Medicine (SOM), Nursing (SON), Health Professions (SHP), Public Health (SOPH), Optometry (SOO), and Dentistry (SOD), the MHRC Community Outreach Program conducted: 1) *Health evaluations* and free preventive screenings and follow up for vision, blood sugar, blood pressure, and other health tests; 2) *Health Talking Circles* held in the community resource centers led by UAB health-care professionals, the MHRC speakers bureau, on topics from diabetes to heart disease; 3) *Healthy lifestyle demonstrations*—hands-on classes teaching participants how to improve health by eating better foods and exercising daily; 4) Disseminated *health education pamphlets*—a variety of brochures on major chronic diseases and reducing health risks; 5) Facilitated the *enrollment of participants in UAB research studies* tackling obesity, diabetes, stroke, and other health concerns; and 6) Provided *health service referrals* to health-care and social service providers.

The MHRC is also utilizing our new downtown HealthSmart wellness facility to conduct and disseminate the above outreach services to residents, employees, and visitors from the surrounding communities.

**Nutrition Obesity Research Center**

Below are the major and sustained community partnerships related to nutrition and obesity where the NORC and its members have played a key role since 10/1/2008.

**Clinics Operated by NORC Leaders.** On average, over 2,500 patients are seen each year in NORC-affiliated clinics. A synergistic relationship exists between the NORC and its associated clinics which are vigorously engaged in community outreach activities. The NORC provides the research infrastructure to support clinical research activities that, in turn, informs the research priorities and programmatic development of the NORC. The clinical settings provide opportunities for faculty and trainees to engage in translational research supported by the NORC. Clinics include:

**The General Nutrition Clinic and the Dept of Nutrition Sciences Inpatient Consultative Services.** The General Nutrition Clinic is part of The Kirklin Clinic, where NORC clinicians see patients who are referred from other physicians or who are self-referred. The consult service provides nutrition support care for inpatients within UAB’s University Hospital System and the Birmingham Veterans Administration Hospital.
**EatRight Weight Management Services.** The EatRight Weight Management Services, directed by Dr. Jamy Ard, has multiple medically supervised weight control programs with a variety of intervention approaches focused on treatment for obesity. An innovative component EatRight is the Nutrition Information Service (NIS). NIS provides up-to-date, accurate and useful nutrition and food information to the community and health care professionals through community workshops, a national hotline, and information fact sheets.

**The UAB Tone Your Bones Program.** Tone Your Bones includes a toll-free hotline, a nutrition and exercise class, plus a free lunchtime program where individuals can learn up-to-date information about osteoporosis. Ms. Beth Kitchin, MS, RD, directs these activities.

**The Children’s Center for Weight Management (CCWM).** CCWM is a comprehensive program addressing the needs of children and adolescents with obesity. Through a variety of behavioral and medical programs, the Children’s Center assists children who are overweight and their families.

**Food Security and Nutrition/Obesity Initiatives.** NORC faculty have become increasingly active in community outreach partnerships targeted at increased quality of food availability, access, and utilization.

**Grassroots Partnerships.** NORC members have supported many community endeavors, including notably Jones Valley Urban Farm (a community-based non-profit organization helping Birmingham grow organic produce and healthy communities through urban farming and education) and the Greater Birmingham Community Food Partners (a coalition focused on promoting community access to safe, culturally acceptable, nutritionally adequate diets).

**Policy Evaluation.** NORC faculty are collaborating with 1) the Jefferson County Childhood Obesity Taskforce to evaluate efforts to combat childhood obesity and 2) the Health Action Partnership (affiliated with the Jefferson County Health Department) to evaluate initiatives to increase fruit and vegetable consumption at food pantry sites. These efforts are all supported by the CDC.

**Conferences Targeted at Community-Level Involvement.** The annual Southern Obesity Summit (supported by Robert Wood Johnson Foundation and CDC as a spinoff of the Southern Rural Access Program) was hosted in its second year in Birmingham by Drs. Olivia Thomas and David Allison in 2008. The

**4th Annual Aging Policy Conference: Hunger and Food Insecurity among Older Adults was** sponsored in partnership with UAB and AARP and was organized by Dr. Locher in 2011. The UAB Hunger and Food Security Initiative, initiated in 2010 and supported by NORC, brought in Reverend David Beckman (President of Bread for the World) to speak on students’ role in fighting hunger.
Ongoing and Recent Activities. NORC members: 1) regularly participate in many venues addressing nutrition issues in the community (e.g., speakers for the Alabama Governor’s Conference on Obesity, organizers of the Alabama State Task Force on Obesity, discussants for the UAB Discussion Book Dialogues, and expert commentators for local media); 2) actively engage in community-based participatory research in various settings (e.g., schools, assisted living facilities); 3) maintain a Consumer-Based Educational Website providing nutrition education to the community, translating research findings into lay language; and 4) have initiated partnerships with the Piggly-Wiggly, YMCA, McWane Center, and local prominent chef proprietors. NORC will continue to support outreach activities related to nutrition and obesity that advance our community.

Vision Science Research Center

The Vision Science Research Center Education and Outreach Module is active in community outreach and education providing information, vision health assessment programs, and programs to enhance the lives of individuals with low vision. The VSRC UWIRC is an important source for support for this effort. The Education and Outreach Module receives over $750K /yr in state, federal and foundation funding.

Black Belt Eye Care Consortium: Module Director, Dr. Mary Jean Sanspree, is Co-Chair of the Governor’s Black Belt Eye Care Consortium. Module personnel work with vision and healthcare agencies statewide to coordinate annual eye care fairs and follow-up education for rural Alabamians at risk for vision loss. This program, which began as the VSRC Rural Alabama Diabetes and Glaucoma Initiative, has served over 8000 people since 2001. Following the devastating tornadoes in the spring of 2011, module personnel worked with various state and federal agencies to coordinate eye care for tornado victims (1800 people) utilizing the Black Belt Eye Care project design. The rural eye care component is a collaborative effort with the Alabama Department of Public Health, the Alabama Academy of Ophthalmology, the Resource Conservation & Development Council, and the EyeSight Foundation of Alabama which provides partial funding.

Alabama State Improvement Grant: UAB and the Alabama State Department of Education partner to assess training needs of professionals and provide graduate education for practicing teachers and other professionals who work with visually impaired students. The UAB School of Education is an important partner for teacher training. Supplementary student stipends for this program are coordinated through the VSRC with the Lions of Alabama "Lions Annie Sullivan Scholar” awards, Alabama State Department of Education teacher training and university consortium funds, and EyeSight Foundation of Alabama funding.

Alabama Deafblind Project: This is a federally funded program to collect data about Alabamians who are deafblind and provide assistance in teacher training, parent training, and educational planning for students with sensory impairments. Partners include the Alabama Department of Education, Alabama Department of Rehabilitation Services, Alabama Institute for Deaf and Blind (AIDB) and local school districts. Stimulus funds provided support for the Module to assist with design, evaluation and training for faculty at AIDB Adult Deafblind
Centre. In addition, funds were obtained from the US Department of Education to support qualified students to pursue a PhD in sensory impairments. These funds support tuition and living expenses for two doctoral students in Vision Science up to five years. This training is carried out in collaboration with other universities via web based instruction in hearing and vision impairment, and deafblind research and practice.

**Orientation & Mobility Training Program:** The Orientation & Mobility Training Program is a federally funded program that, in collaboration with the Alabama State DOE, the UAB School of Education, and AIDB, provides an opportunity for professionals with degrees in education, occupational therapy, physical therapy or nursing to add masters level certification in orientation and mobility techniques in order to work with vision impaired children and adults. There are 14 such programs in the nation, and ours is the only one in the Southeast. The award ($199K/yr) provides funds to train 60 individuals who already have TVI (Teacher of the Vision Impaired) certification. The original PI, Dr. Moses, is retiring at the end of September and we have received approval from the agency to appoint Dr. Diane Pevsner, School of Education, as co-PI of the grant.

**Career Module in Visual Impairments:** This is an educational program for undergraduates interested in vision-related careers available at UAB. Career information is provided to local and statewide universities upon request and is a product of the Outreach and Education Module.

**Topical conferences in vision and education:** This is a program of interactive seminars that reaches over 200 persons each year in rural and urban areas through the statewide VIANET system. Topics include reading media assessment, cortical visual impairments, psycho-educational testing, functional vision, and cognitive skills assessment. Collaborating university sites are University of North Alabama, Alabama A&M, UAH, University of Alabama in Tuscaloosa, Talladega College, Auburn University in Montgomery, Alabama State, Troy University, and the University of South Alabama.

**Parent support groups:** Two statewide parent groups are affiliated with the VSRC Education and Outreach Module. The Alabama Deafblind Multi-handicapped Association meets during the annual Helen Keller Festival with collaborative training from VSRC staff. The Alabama Association for Parents of the Visually Impaired is assisted by the graduate teacher trainees who work with the children during the annual meeting. The parent group is a collaborative effort with “Songs for Sight” ophthalmology low vision, Hilton Perkins Parent Programs, and the UAB School of Education where the graduate students provide activities at the camp while obtaining clinical hours with children with low vision.

**Culture:** Art programs organized through the Module involve visually impaired students each year who have vision loss. These include the Helen Keller Art Show and the annual Congressional (Bachus) Holiday Card.

**BioMatrix Engineering and Regenerative Medicine**
The BERM Center has engaged in several activities to highlight our research activities to the community:

- The BERM Center created a display exhibit of bioreactors and tissue constructs and a video loop to accompany the traveling Tissue Engineering and Regenerative Medicine exhibit at The McWane Science Center (26 November 2010 - 2 January 2011) entitled “If a Starfish Can Grow a New Arm, Why Can’t I?”;

- To complement the exhibit, UAB graduate students working in BERM Center faculty labs on biomaterials, stem cell and regenerative medicine dissertation projects volunteered to be ‘on the floor’ at the McWane Science Center each day during the “If a Starfish Can Grow a New Arm, Why Can’t I?” exhibit. In total, at least 12 graduate students volunteered more than 60 hours, providing information and answering questions from student and parent visitors to the exhibit; and

- To highlight this exhibit and UAB’s role locally, Dr. Timothy M. Wick presented a talk “The Science of Tissue Engineering” at the inaugural McWane Science Center “Lunch and Learn” symposium (10 December 2011.)

BERM Center leadership have also given talks at local and national venues to highlight UAB activities and these include:

- “The Science of Tissue Engineering” McWane Science Center “Lunch and Learn” symposium (10 December 2011) – Wick

- “Tissue Engineering and Regenerative Medicine”, Shades Valley Rotary Club (7 February 2011) – Murphy-Ullrich and Wick


Articles in the local press have also appeared which highlight tissue engineering research at UAB:

- July 2010: Birmingham Science News Examiner “UAB receives NSF grant for intervertebral disk regeneration research” (Paul Hamaker)

- December 2010: The Birmingham News and al.com “University of Alabama at Birmingham researchers hope to engineer blood, bone and other tissues” (Hannah Wolfson)
January 2011: Alabama’s13.com” UAB's new 3-D nanoscaffold could revolutionize human tissue engineering

March 2011: Birmingham Medical News “UAB’s BERM Center Focuses Expertise on Regenerative Medicine” (Ann DeBellis)

BERM leadership activities at the national level:

The following activities raise the national profile of this area of science in general and specifically, the scientific reputation of tissue engineering at UAB:

- December 2008: Co-Chair, TERMIS (Tissue Engineering Regenerative Medicine International Society) meeting session, December 2008, San Diego, CA (Murphy-Ullrich)

- October 2010: Program organizer with Robert Sah, UCSD, TERMIS-American Society for Matrix Biology (ASMB)

- Joint Symposium at ASMB national meeting, Charleston, SC, October 2010 (Murphy-Ullrich)

- Co-organizer, 2014 Keystone Symposium on “The Convergence of Matrix Biology and Biomaterials in Regenerative Medicine” (Thomas Barker, Georgia Tech, organizer, and Rocky Tuan, University of Pittsburgh, and Joanne Murphy-Ullrich, UAB, co-organizers)

Center for Nanoscale Materials and Biointegration

CNMB’s primary community outreach activity is through the participation of high school science teachers in its NSF sponsored Research Experiences for Teachers (RET) program. The RET program provides science teachers with the opportunity to become involved in research during the summer and to bring the excitement and elements of their research activities back to their classrooms. The table below lists information about the teachers’ research projects for the past three summers.

<table>
<thead>
<tr>
<th>Year</th>
<th>Teaching Area</th>
<th>School Affiliation</th>
<th>Research Project</th>
</tr>
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<tbody>
<tr>
<td>2010</td>
<td>Middle School Science – Earth, Life and Physical Sciences</td>
<td>Felton Laboratory School, South Carolina</td>
<td>*Composite materials</td>
</tr>
<tr>
<td>2010</td>
<td>High School AP Physics, College Prep Chemistry</td>
<td>John Carroll High School, Alabama</td>
<td>Boron doped chemical vapor deposited diamond</td>
</tr>
</tbody>
</table>
In a broader definition of outreach, the CNMB has been training undergraduate students across multi-disciplines of science through its NSF- and NASA-supported Research Experiences for Undergraduates (REU) program. While qualified applicants from around the country have participated in the program, the recruitment focus has been primarily on undergraduate students from four states: Alabama, Georgia, Mississippi, and Tennessee, with a special emphasis on recruiting students from underrepresented groups in the sciences and engineering. The results of these efforts have been highly successful as 52% of the REU students over the past four years have been women and underrepresented minorities.

**Center for Exercise Medicine**

This newly established center has community outreach as a major goal of the Center’s mission. Since February, Center leaders have met with a number of campus and community organizations to begin the process of building partnerships. In every instance the outcome has been very positive. Community partnerships will no doubt continue to grow as awareness grows. Efforts are currently underway to establish collaborative relationships with: Jefferson County Department of Health, Metropolitan Birmingham YMCA, Lakeshore Foundation, UAB HealthSmart, UAB Employee Wellness, and others.

**Global Center for Craniofacial, Oral and Dental Disorders**

This newly established Center will build on already established partnerships with the community. These extensive relationships have mostly been developed through efforts of Center leaders. As an example, the Department of Civil, Construction, and Environmental Engineering has research partnerships with the Regional Planning Commission of Greater Birmingham (RCPGB), the Birmingham Jefferson County Transit Authority (BJCTA), the Birmingham Business Alliance (BBA), the Green Building Focus (GBF), as well as a number of local industries and manufacturers of green construction materials.