

Where Compassion Inspires Progress

Greenwood Genetic Center Partnership Campus A Strategic Vision

Building a Knowledge Community from a Rich Heritage -Greenwood, SC

Greenwood Genetic Center-**Over Four Decades**

Decade

1974>>>>

- 1974 Greenwood Genetic Center founded by Roger Stevenson, MD and Hal Taylor, PhD.
- 1975 Completion of first building to house clinics, laboratory, and library.
- 1975 Satellite clinic system initiated.
- 1979 SC Genetics Conferences began.
- 1980 Completion of James Cuthbert Self Genetic Laboratories on current campus.

- Decade 1984>>>>
- Completion of Clinic building on 1984 current campus.
- 1984 Accreditation of postgraduate Medical Genetics Training Program.
- Establishment of Recombinant DNA 1985 Laboratory.
- Satellite offices 1988 opened in Greenville, SC and
- Columbia, SC. Establishment of 1989 the Division of Genetic Research.
- 1990 DNA Diagnostic
 - Laboratory established.

- Decade 1994>>>>
- 1994 Division of Education and Fetal Pathology Section established.
- Completion of the 1995 JC Self Research Institute of Human Genetics.
- 1999 Initiation of the South Carolina Metabolic Diseases Program.
- 2002 Faculty established treatment of genetic disorders as a primary goal of the Center.

- Decade 2004>>>
- 2005 Clemson University and Greenwood Genetic Center announced Genetics Collaborative.
- Greenwood 2007 **Research** Park opened.
- 2007 Satellite office opened in Charleston, SC.
- Steven A. Skinner, MD named Director 2011 of Greenwood Genetic Center.
- 2011 Diagnostic Laboratories achieved accreditation by the College of American Pathologists.
- 2013 Groundbreaking for the Clemson University Center for Human Genetics on Greenwood campus.

- Decade 2014>>>>
- 2015 McAlhany Family Center for Collaborative Research established at JC Self Research institute.
- Ravenel Boykin 2015 Curry Chair in Genetic Therapeutics, established.
- Completion of Self Regional Hall, 2016 Clemson University Center for Human Genetics.
- 2018 Trudy Mackay, PhD named Self Family Endowed Chair in Human Genetics and Director of Clemson University Center for Human Genetics.
- Allin Aquaculture Facilty opens in Greenwood 2018 Genetic Center's JC Self Research Institite.



Past and Present

Throughout the rich 40+ year history of the Greenwood Genetic Center (GGC), we have held closely to two complementary philosophies to guide our work. We will provide access to compassionate care for all who need genetics services, and we will offer state-of-the-art technologies to serve these individuals and families.

With the era of genetic treatment upon us, and our roots firmly placed in the evaluation and diagnosis of genetic disorders, intellectual disabilities, birth defects, and autism, we are committed to enhancing our diagnostic and research capabilities and remaining a leader in the field of medical genetics. Along with these aspirations we have employed technological advances to ensure patient access and deliver the most innovative educational programs.

Over these years, we have received immeasurable benefit from collaborations with the state of South Carolina, academic and industry partners, and have been financially supported through private foundations, public grants and contracts, fee income, and an exceptionally enlightened philanthropic community. This support has allowed us to expand our clinical reach with four satellite offices across South Carolina, as well as pursue cuttingedge research and advanced diagnostics.

Expanding our Potential

 $\overline{G}GC$'s progress has moved steadily forward over the years because our faculty, staff, and board leaders were like-minded in their vision of what we could achieve.

Sustaining this progress requires continuous innovation and openness to new and fruitful collaborations.

One such example is the recent addition of the Clemson University Center for Human Genetics on our Greenwood campus. This partnership is allowing us to create a deeper research base, accumulate a critical mass of scientists and capabilities, and expand our ability to provide advanced education and training in genetics.

The Next Chapter

In a rapidly evolving field like genetics, complacency is not an option. Competition for talent and research funding necessitates growth. With the momentum of the Clemson partnership, the GGC has joined forces with the Greenwood Partnership Alliance, our community's economic development organization, to develop a strategic plan to mobilize 170 acres surrounding our campus in a way that will support our Center's growth, advancing and strengthening both our institution and our community.

Through this strategic plan we present a Vision for Greenwood including a strategy to make this newly named 'Greenwood Genetic Center Partnership Campus' the place to be for local, regional, national, and international players in all aspects of the field of genetics and related activities that will continue to make Greenwood a rich and exciting place where innovation and healthcare exist side-by-side. A companion strategic plan, with assistance from Upper Savannah Council of Governments, is addressing the Center's core operations.

A Vision for Greenwood

Among its primary features, this strategic plan for the GGC Partnership Campus looks outward and embraces the Greenwood community of which it is a part. We are leveraging the assets and strengths of GGC with those of the tremendous medical and educational resources in Greenwood and the revitalization efforts of the city.

The Center's core programs and resources are the magnets for the activity that could occur on the GGC Partnership Campus. However, the surrounding medical and educational resources of Greenwood can be a dramatic driver for growth of the GGC Partnership Campus as well.

Through careful planning and implementation, and the cooperation of stakeholders across our community, we envision this GGC Partnership Campus as an amazing growth opportunity for the Greenwood Genetic Center and a chance to leverage Greenwood as the next Knowledge Community.

We thank all of you who have committed months of work to this project. In the following pages, we invite you to consider this exciting future direction for our Center, our community, and, most of all, for the families who stand to benefit from the research and innovations that will follow.

Greenwood Genetic Center Partnership Campus:

Planning for Success



Steven A. Skinner, MD Director, Greenwood Genetic Center

GGC Partnership Campus: A New Economic Development Asset for Greenwood



The GGC Partnership Campus will provide a unique asset for the City of Greenwood and for Greenwood County, while supporting GGC's long-term goals for the delivery of clinical care, diagnostic testing, research and education.

The campus will become the location of choice for companies and organizations seeking a quality-of-life environment focused on promoting connections and collaboration.

To accomplish this, the new land plan provides an intentional framework for transforming GGC's consolidated properties into a dynamic, harmonious environment - one that serves as both an anchor of Greenwood's emerging Medical Innovation District, and also a vital, connected hub within the broader Greenwood community. Its layout and development encourage the critical mass of interactions that increase opportunities for innovation.

The strategy for development of the GGC Partnership Campus emphasizes place-making based on:

- A strong center
- Coherent vision
- Flexibility
- Scalable, phased growth
- Mixed-use activities

Additionally, and vitally important to our strategic intent, the land plan development concepts help ensure that GGC can continue to sustain itself financially and advance toward its long-term scientific and educational goals.

The GGC Partnership Campus Plays a Key Role in Helping GGC:

- Grow and attract new financial resources
- Compete successfully for the next generation of faculty and staff
- Build institutional partnerships
- Create the climate and conditions for private industry partnerships

Partner Profile: Self Regional Hall - Clemson University Center for Human Genetics



GGC and Clemson have a long-standing research and educational collaboration and share a vision of enhancing treatment for genetic disorders and prevention strategies through fundamental and translational genetics research.

Clemson is establishing their Center for Human Genetics on the GGC Partnership Campus with a mission to pursue cutting-edge research programs in genomics, epigenetics, computational biology and medical genetics. Named Self Regional Hall in recognition of the commitment of Self Regional Healthcare to the collaborative,

the facility is an example of the vast community support that the GGC Partnership Campus enjoys from the community. Activities covered by this partnership include graduate education, research, diagnostic testing and educational outreach. Clemson and GGC share resources and expertise in areas such as bioinformatics, sequencing, mass spectrometry, proteomics, functional genomics and other related technologies.



Through the GGC Partnership Campus' approach to development, everything we do is to encourage face-to-face interaction, setting the stage to appeal to partners who want to locate operations and people in Greenwood. The basis of the GGC Partnership Campus is talent attraction.

To secure its future as a leader within the field of treatment of genetic disorders and birth defects, and to ensure the organization's sustainability, GGC will continue to establish partnerships that complement and build on its strengths and develop capabilities in the arena of commercializing scientific discovery.

Medical Innovation District

Healthcare is at the heart of GGC's operations, and we are fortunate to be surrounded by other exceptional medical facilities engaged in technological advancements and quality care. These hospitals, physicians' offices, outpatient centers, and long term care facilities working together to build connections, share programs, and achieve critical mass provide an attraction to companies and organizations seeking clinical collaboration and quality of life.

Our strategy for the GGC Partnership Campus is outward-facing. It involves all of Greenwood. That's because the vision for the GGC Partnership Campus is about talent. Human capital is Greenwood's most precious economic development asset. Creating a magnet for recruiting and retaining talent-in particular a critical mass of medical and research expertiserequires more than GGC alone. It requires physical connectors and programmatic bridges. It requires understanding the importance of engagement with the full community, and becoming stakeholders in their revitalization.

This Knowledge Community we have envisioned for Greenwood is also about creating a place where people want to be. These goals require connecting with GGC's institutional neighbors, including Self Regional Healthcare, Lander University and Piedmont Technical College. It involves new ways of thinking about community and about GGC's role in community engagement to help promote, market, and develop the GGC Partnership Campus.

A Knowledge Community approach can be transformational for Greenwood - creating the platform that lifts GGC to higher levels in the areas of treatment, diagnostics, research, and education, integrating them fully within a Medical Innovation District encompassing Self Regional Healthcare and the wealth of other medical entities in the area. Everyone in Greenwood has a stake in the success of GGC and its Partnership Campus. In turn, the Campus will be developed in ways that leverage and complement its surrounding medical and healthcare partners, and ultimately the health and wellness of Greenwood, of South Carolina, and of the world.

Pathways to Achieving a Critical Mass of Talent in Greenwood

- Increase non-profit academic and research partner presence on campus
- Expand the educational and professional development capabilities on the GGC Partnership campus
- Engage strategically selected private sector companies
- Engage with other organizations in basic research -regionally, nationally, and globally
 to diversify fundamental knowledge of genetic mechanisms that support the applied research and treatment goals of GGC



Building a Knowledge Community:

Partnerships and Talent Recruitment

Master Plan/Development Framework

The land plan provides a framework for transforming GGC's consolidated properties into a dynamic, harmonious district which will serve as both a critical anchor of Greenwood's Medical Innovation District and also a vital, connected hub within the broader Greenwood community. The plan encompasses three distinct areas.

I - GGC Heritage Center

This existing core facility anchors the GGC Partnership Campus and the broader proposed Medical Innovation District surrounding it. Going forward, these facilities should continue to grow as a highly coherent precinct that maintains the existing GGC scale and character.

The GGC Heritage Center anchors a broader network of roads, pedestrian paths, and open spaces that connect with adjacent sites for Clemson University and future partners who will locate on the GGC Partnership Campus.

Existing land	50 acres	Parking
Existing	100,000 gsf	210 cars
Proposed (red)	90,000 gsf	300 cars

The new GGC Heritage Center plan offers several phasable growth options ranging from discrete small additions to larger free-standing wings, comparable in character to GGC's existing buildings. This plan also extends the site's current public space network with new landscaped courtyard quadrangles in the core campus.

II- GGC Partnership South

The GGC Partnership South campus leverages existing roads and utility infrastructure for immediate development opportunities. Projects will occur along Helix Road in four parcels directly south of the GGC Heritage Center. Numerous development options arise ranging from small freestanding buildings (<20,000gsf) to larger corporate complexes (<250,000gsf). The recent Clemson University facility and Upper Savannah Council of Governments office space are examples of possible development models.

Site	Area	Capacity	Parking
1	21 acres	180,000 gsf	720 cars
2	9 acres	90,000 gsf	360 cars
3	8 acres	90,000 gsf	360 cars
4	6 acres	40,000 gsf	160 cars

Future developments here will stress flexibility, but also tie into a coherent site circulation corridor that extends through the GGC Heritage Center into GGC Partnership North, and ultimately to Uptown Greenwood via the Carolina Connector.



A 'Soft Landing Place" at GGC

Interested in exploring a GGC partnership on an interim basis? Approximately 8,000 square feet is currently available for a combination of wet lab, dry lab, and office uses. Located on the 2nd floor of the JC Self Research Institute, in the McAlhany Family Center for Collaborative Research, this space is in the midst of our campus with convenient access to all GGC resources and amenities, and can accommodate start-up companies, special project operations or organizations wanting to consider a long-term relationship with GGC.

III- GGC Partnership North

More speculative in nature, GGC Partnership North offers the potential for significant research-based mixed-use development. With the planned addition of the Carolina Avenue Connector, GGC Partnership North is positioned to combine research and medical facilities with residential-commercial space that foster connections to Uptown Greenwood.

Site	Area	Capacity	Parking
1	4 acres	30,000 gsf	120 cars
2	4 acres	40,000 gsf	160 cars
3	3 acres	40,000 gsf	160 cars
4	4 acres	40,000 gsf	160 cars
5	4 acres	40,000 gsf	120 cars
6	4 acres	60,000 gsf	240 cars
7*	6 acres	60 du's	100 cars
8*	6 acres	60 du's	100 cars
<u>9*</u>	6 acres	62 du's	100 cars

*Indicates mixed-use residential which is measured in developmental units (du's)

In particular, residential development may offer near-term growth opportunities. Many cities and towns in the Carolinas are embracing the multi-family and loft-style housing proposed here. Not only would such housing align with the needs of young GGC faculty, and other staff of the Medical Innovation District, but residential developers also have the ability to fund road and utility infrastructure, which does not yet exist at GGC Partnership North. Through this plan, GGC Partnership Campus would truly integrate with the Greenwood community - furthering its emergence as a Knowledge Community.



Conceptual Master Plan

Existing

Proposed

Potential Specialty Uses (Place-making elements)

- Conference Center with supporting hotel
- Patient/family guest accommodations
- Extended-stay accommodations for visiting faculty
- Student housing solutions
- Market rate housing
- Day care facility
- Sports/fitness facilities; bike and jogging path
- Multi-tenant lab building for other institutions and/or private sector tenants
- Shared research resources
- Incubator space



New community gateways will enhance visibility and accessibility of the GGC Partnership Campus.

Contact Us!

For more information about the GGC Partnership Campus and the Greenwood Medical Innovation District, including real estate development opportunities and sites or

buildings for company location, contact:

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For more information about Greenwood Genetic Center's Services and Programs, contact:

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