



# The CURE Corridor

**From Education and Research,  
to Clinical Trials and Patient Care Delivery,  
it's happening in Scottsdale**

 CHOOSE  
*Scottsdale*  
CITY OF SCOTTSDALE ECONOMIC DEVELOPMENT

## **What is the Cure Corridor?**

*The Cure Corridor is not only a location but a concept designed to promote the innovative activities occurring around the concentration of the Bio-Life Sciences sector from Shea Boulevard to the Scottsdale Airpark.*

*The Bio-Life Sciences Sector is a major driver of the innovation economy in the State of Arizona, Greater Phoenix region and City of Scottsdale. According to the Flinn Foundation, the biosciences in Arizona “develop treatments for health afflictions, design diagnostics to gauge and prevent illness, strengthen our food supply, develop alternative fuel sources, and much more.”*



# The CURE Corridor

## Key Cure Corridor Businesses

Education	Research	Clinical Trials	Patient Care Delivery
1 Arizona Breastnet LLC	9 Clinical Technologies Inc.	19 Mayo Clinic	28 Sleep Healthcenters LLC
2 Arizona Center for Fertility Studies Ltd.	10 CVS Caremark	20 Mayo Medical School - Arizona Campus	29 Spooner Physical Therapy & Hand Rehab P.C.
3 Arizona Oncology Associates	11 Global Dental Science	21 Orthoscan	30 St. Jude Medical
4 Arizona Oncology Services Of Yuma Inc.	12 GlobalMed Group	22 Provista Diagnostics	31 Translational Drug Development (TD2)
5 Arizona State University Department of Biomedical Informatics	13 HealthSouth Scottsdale Rehabilitation Hospital	23 Scottsdale Healthcare	32 US Oncology
6 Array Therapeutic	14 IDM Lab Track	24 Scottsdale Healthcare Research Institute	33 Valley Anesthesiology Consultants Ltd.
7 Brain State Technologies	15 IMULAN BioTherapeutics (Scottsdale)	25 Scottsdale Medical Imaging	34 Valley Ent P.C.
8 Cayenne Medical Inc.	16 International Biologics Tissue Services	26 Scottsdale Pediatric Center PC Inc.	35 Virginia G. Piper Cancer Center Clinical Trials at Scottsdale Healthcare
	17 Isotechnika Pharma Inc.	27 Scottsdale Urologic Surgeons, Ltd.	36 West Pharmaceutical Services
	18 LabCorp		

## What makes the Cure Corridor unique?

A concentration of cutting-edge research, clinical trial activity and world class patient care delivery... from the Scottsdale Airpark down and along Shea Boulevard to the new ASU Mayo Medical School.

Mayo Clinic in Scottsdale opened in 1987 as a premiere academic medical center in the southwestern United States, where medical research and education are fully integrated with delivering the highest-quality patient care. Mayo Clinic physicians and scientists in Arizona conduct hundreds of clinical trials to test the effects and safety of new drugs, devices and therapies. Trials are related to many conditions including cancer, heart disease, stroke, kidney and urological disorders and neurological diseases.

Mayo Medical School. Fundraising is underway for the development of a Mayo Clinic Medical School campus in Arizona. Mayo Clinic is expanding the medical school in conjunction with Arizona State University and students will receive an M.D. degree along with masters in the science of health-care delivery.

Research teams at Mayo Clinic actively investigate complex diseases and conditions with a goal of improving care for patients. In Arizona, the areas of focus for Mayo include blood cancers, particularly multiple myeloma; metabolic and endocrine diseases, such as diabetes and obesity; bioinformatics; genomics; and aerospace medicine.

Translational Drug Development (TD2) is helping stimulate Scottsdale's economy, providing an annual economic impact forecast by 2015 to top \$239 million. TD2 is projected to generate as many as 1,080 jobs and produce annual tax revenues of \$6.6 million for Scottsdale by 2015. TD2 was recently selected for a \$200 million deal pairing TD2 with FORMA Therapeutics in an alliance with Celgene Corporation to develop a new line of anti-cancer drugs . . . and the first patients to benefit will be in Scottsdale.

For over 30 years, Scottsdale Medical Imaging, LTD has steadfastly pursued clinical excellence, advanced technology, innovation and research - all in an effort to bring patients an impeccable level of care and referring physicians an equally impeccable level of service.

CVS Caremark is a pharmacy innovation company focusing on helping people on their path to better health. CVS Caremark is the largest integrated provider of prescriptions and health related services in the nation. One of its major regional offices is in Scottsdale along the Cure Corridor.

Designed to return patients to leading active, independent lives, HealthSouth Scottsdale Rehabilitation Hospital is a 60-bed rehabilitation hospital that provides a higher level of comprehensive rehabilitation services. HealthSouth Scottsdale Rehabilitation Hospital provides care for general rehabilitation diagnoses such as neuro, orthopedic, cardiac, pulmonary, and oncology and specialized inpatient programs for stroke, brain injury, burn, and Parkinson's disease.

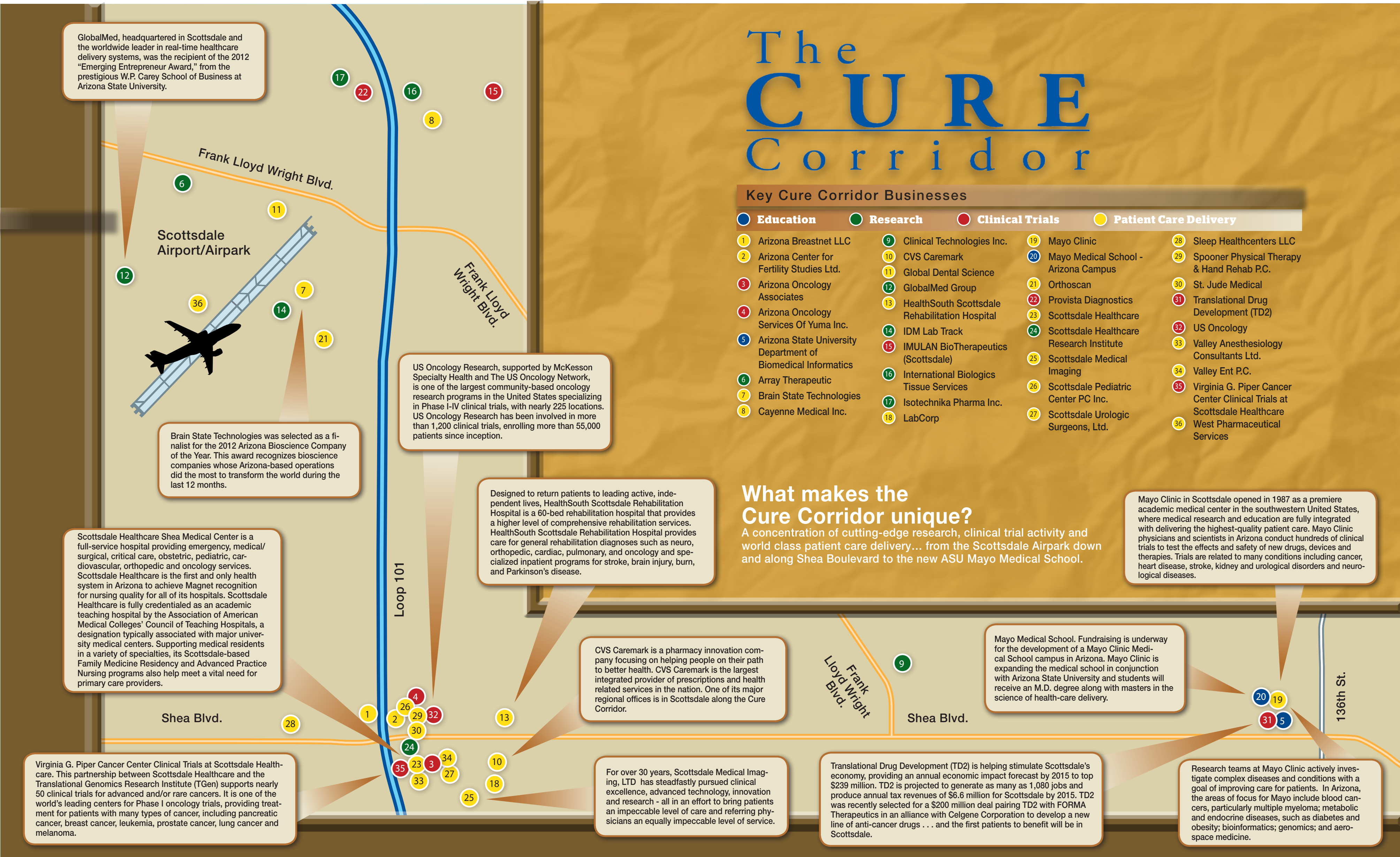
US Oncology Research, supported by McKesson Specialty Health and The US Oncology Network, is one of the largest community-based oncology research programs in the United States specializing in Phase I-IV clinical trials, with nearly 225 locations. US Oncology Research has been involved in more than 1,200 clinical trials, enrolling more than 55,000 patients since inception.

Brain State Technologies was selected as a finalist for the 2012 Arizona Bioscience Company of the Year. This award recognizes bioscience companies whose Arizona-based operations did the most to transform the world during the last 12 months.

Scottsdale Healthcare Shea Medical Center is a full-service hospital providing emergency, medical/surgical, critical care, obstetric, pediatric, cardiovascular, orthopedic and oncology services. Scottsdale Healthcare is the first and only health system in Arizona to achieve Magnet recognition for nursing quality for all of its hospitals. Scottsdale Healthcare is fully credentialed as an academic teaching hospital by the Association of American Medical Colleges' Council of Teaching Hospitals, a designation typically associated with major university medical centers. Supporting medical residents in a variety of specialties, its Scottsdale-based Family Medicine Residency and Advanced Practice Nursing programs also help meet a vital need for primary care providers.

Virginia G. Piper Cancer Center Clinical Trials at Scottsdale Healthcare. This partnership between Scottsdale Healthcare and the Translational Genomics Research Institute (TGen) supports nearly 50 clinical trials for advanced and/or rare cancers. It is one of the world's leading centers for Phase I oncology trials, providing treatment for patients with many types of cancer, including pancreatic cancer, breast cancer, leukemia, prostate cancer, lung cancer and melanoma.

GlobalMed, headquartered in Scottsdale and the worldwide leader in real-time healthcare delivery systems, was the recipient of the 2012 "Emerging Entrepreneur Award," from the prestigious W.P. Carey School of Business at Arizona State University.





# An introduction to the vast inventory of cure-related assets in Scottsdale

The City of Scottsdale is proud to host the amazing assets that contribute to the success of healthcare and bioscience activities in Scottsdale. From education and research to clinical trials and patient care delivery, it is happening right here in Scottsdale —

## EDUCATION

### Arizona State University (ASU) Department of Biomedical Informatics (BMD) at Mayo Clinic

bmi.asu.edu  
The ASU Department of Biomedical Informatics is committed to advancing the science and technology of biomedical informatics by influencing policy and improving individual and population health. The department provides leadership in research and development, education, community engagement and service.

### Arizona Technology Enterprises (AzTE) at SkySong

www.azte.com

Arizona Technology Enterprises (AzTE) is the exclusive intellectual property management and technology transfer organization for Arizona State University. AzTE works with faculty, investors and industry partners to speed the flow of innovation from research laboratory to the marketplace. From revolutionizing the management and treatment of epilepsy to creating a family of software components used to expand CPU processing capacity in iSCSI SAN, AzTE's startups are taking off.

### Mayo Medical School - Arizona Campus

www.mayo.edu/education

Mayo Medical School, based on Rochester, Minn., is collaborating with Arizona State University to expand Mayo's medical school nationally, including a campus here in the Phoenix metropolitan area. Students at all Mayo locations will have the option of completing an ASU master's degree in the science of health care delivery as they earn Mayo medical degrees. The master's degrees components include social and behavioral determinants of health, health care policy, health economics, management science, biomedical informatics, systems engineering and value principles of health care.

### Scottsdale Community College

www.scottsdalecc.edu

Scottsdale Community College (SCC), a two-year college, is one of 10 colleges in the Maricopa Community College District. Its mission is to improve the quality of life in its service communities by providing challenging, supportive and distinctive learning experiences. SCC offers a compendium of courses and degrees in bioscience related topics, and is a Maricopa leader in math and science instruction and undergraduate science research.

### SkySong

www.skysong.asu.edu

ASU SkySong impacts local, state and international economies by engaging the University with businesses and governments to drive economic development and corporate engagement. Under the Office of Knowledge Enterprise Development, the research arm of the university, ASU SkySong is committed to advancing bioscience research and innovation, creating linkages to the biomedical community, and producing outstanding graduates to the field.

### Spear Education

www.speareducation.com

An innovative dental education company, the Spear Education facility has a masterful curriculum, gifted instructors and an ideal environment for advanced learning to serve the striving dentist, those dedicated to the pursuit of clinical excellence that transforms their practices and the lives of their patients. From lecture to hands-on training, the 65,000-square-foot Spear Campus facility provides a fully engaging learning experience. Members attend seminars in a state-of-art 300-person lecture hall, while experiencing firsthand the latest innovations in dental technology in the Spear laboratory.

## RESEARCH

### Array Therapeutic

www.arraytherapeutic.com

Array Therapeutic is pioneering research for the application of ultrasound to stimulate biological cells for the treatment of pain and neural disorders. Their mission is to find new ways in which energy waves can be used to stimulate healing, reduce pain and to develop products based on these findings that will contribute to health and wellbeing of people.

### The Ben & Catherine Ivy Foundation

www.ivyfoundation.org

The Foundation funds patient-focused research on gliomas, a type of brain tumor. Having invested more than \$50 million in brain cancer research since 2005, its ultimate goal is to cure brain cancer. Current efforts focus on improving diagnostics and treatment that will lead to the doubling of life expectancy for patients with brain cancer within the next seven years. The Ivy Foundation is the largest privately funded brain cancer research foundation in North America.

### Blood Systems Inc.

www.bloodsystems.org

Blood Systems, one of the nation's oldest and largest non-profit community blood service providers, operates community blood centers serving nearly 600 hospitals in 18 states, four high-volume donor testing laboratories, biological products distribution services, a quality consulting group and a world-renowned transfusion medicine research institute.

### EthiX Associates

EthiX Associates was founded by Jon W. McGarity and Susan A. McGarity, NP, RN, CRC in February 1996 as a consultancy business serving the business needs of the healthcare industry with an emphasis on pharmaceuticals, biotechnology and medical devices. Both Susan and Jon have extensive experience in the life sciences industries having worked for a number of major pharma/biotech/medical information companies in senior level positions. Clients range from early stage start-up companies to some of the largest pharma/biotech companies with many of the assignments focused on business development activities and strategic planning.

### GlobalMed

www.globalmed.com

GlobalMed, a privately held company headquartered in Scottsdale, is a leader of telemedicine companies transforming healthcare globally by developing and integrating secure, efficient health delivery systems that improve access and quality of care, while reducing unnecessary costs.

### IDM LabTrack (formerly Ambient)

www.ambientidinc.com

IDM LabTrack utilizes advanced technology to track and trace specimens more accurately and economically, while eliminating the chance of human error. LabTrack provides solutions for the clinical and anatomic pathology laboratories for hospitals and commercial laboratories, and has been developing and deploying comprehensive business information management systems for healthcare applications since 2007.

### NeuroEM Therapeutics, Inc.

NeuroEM Therapeutics, Inc. was recently established in January 2013. It is committed to developing, clinically testing and marketing medical devices which provide Transcranial ElectroMagnetic Treatment (TEMT) as an effective prevention and treatment of neurological conditions such as Alzheimer's Disease (AD). The company has a highly experienced management and scientific team in place to develop the technology through the regulatory process and to grow the commercial side of the business.

### Neuromuscular Research Center

www.nrcaz.com

Neuromuscular Research Center is dedicated to the diagnosis and treatment of patients with neuromuscular and other neurological disorders. The center performs electromyogram (EMG) and nerve conduction studies, muscle and nerve biopsies, immunotherapy and infusions and clinical research trials with biologics.

### Radiant Research

www.radiantresearch.com

Radiant Research is a comprehensive clinical research and development company serving the biopharmaceutical and medical device industry. Their clinical research centers provide a critical service to biopharmaceutical companies by conducting the clinical research protocol and collecting the data necessary to support the safety and efficacy of the drug company's product to the FDA.

### Scottsdale Healthcare Research Institute

www.shc.org

The Scottsdale Healthcare Research Institute is where world-class care and groundbreaking research meet to benefit local patients. Leading researchers, community physicians and clinical teams work together to develop new therapies, as well as provide innovative care and treatments close to home. Characteristics that make Scottsdale Healthcare Research Institute unique include a focus on translating medical innovations into solutions, a drug development scholar program, recognition in the area of 'precision medicine', and collaboration and education. Numerous clinical trials are always underway at Scottsdale Healthcare Research Institute in areas such as oncology, cardiovascular, bariatrics, trauma and orthopedics/neurology.

## CLINICAL TRIALS

### Imaging Endpoints

www.imagingendpoints.com

Imaging Endpoints is a leader in the integration of imaging into clinical development to accelerate outcomes and improve success. They specialize in helping companies develop and incorporate the best imaging methodologies into their translational studies and clinical trial programs, such as the RAPid Detection and Assessment of Response program (RADAR). RADAR is designed to accelerate product development by integrating new, more powerful imaging technologies into translational studies and clinical trials.

### IMULAN BioTherapeutics

www.imulan.com

IMULAN is focused on providing innovative solutions for complex animal diseases. Its policy is to provide veterinarians access to conditionally approved products for diseases where no current approved therapy is available. IMULAN is in development of a canine atopic dermatitis using peptide immune-therapeutics (TCR peptides).

### Provista Diagnostics

www.provistadx.com

Provista Diagnostics develops and commercializes breakthrough, easy to administer blood based diagnostic tests for early oncology-related disease state recognition and detection purposes. Its focus is on oncology-related diagnostics where a significantly high, unmet clinical need for such testing products exists, and develops these diagnostic technologies at its CLIA accredited, GLP compliant laboratory facility based in Scottsdale, Arizona.

### Silamed Inc.

www.silamed.com

Silamed, Inc. manufactures and markets pharmaceutical products. Its products include Silexyn, a silicon medicinal drug for cancer treatment and silicon derivatives. The company offers drug discovery and development and non-oncology applications development services. Additionally, it provides biopharmaceutical research and development services. Silamed, formerly known as RND Pharmaceuticals, Inc., was founded in 2003 and is based in Scottsdale, Arizona.

### Translational Drug Development (TD2)

www.td2inc.com

Translational Drug Development (TD2) provides innovative services for oncology-focused biopharmaceutical companies. TD2 is uniquely positioned to support improved and accelerated development of medicines for life-threatening diseases. TD2 applies rigorous and high-throughput translational preclinical development, combined with regulatory affairs expertise, to customize clinical trial design and execution. TD2's suite of capabilities encourages the timely selection of patient populations most likely to benefit from new medicines, and the rapid identification of clinically significant endpoints. TD2 is committed to reducing the risks and uncertainty inherent in the drug development process and to the acceleration of patient access to promising treatments. TD2 is a for-profit subsidiary of the non-profit Translational Genomics Research Institute (TGen).  
www.tgen.org

### Virginia G. Piper Cancer Center at Scottsdale Healthcare

www.shc.org

Scottsdale Healthcare's Virginia G. Piper Cancer Center Clinical Trials is one of the nation's leading centers for Phase I "first in human" clinical trials of new cancer therapies. A partnership with TGen (www.tgen.org), the center is known for its work in advanced and rare cancers. The center continues to accelerate the development of new therapies for even the most challenging cancers, giving our community access to new technologies, hope and for many longer, healthier lives. Success stories include treating the world's first patient with

Erivedge, a breakthrough for advanced basal cell cancers and others, which was approved by FDA in one-third typical time, and the study of Abraxane/Gemcitabine, a new combination therapy began at Scottsdale Healthcare and confirmed in international trials to extend survival in pancreatic cancer (doubled response from standard therapy). Virginia G. Piper Cancer Center Clinical Trials has attracted patients from 48 states and two dozen countries.

## PATIENT CARE DELIVERY

### Alere Connect

www.alereconnect.com

Alere™ Connect, headquartered in Scottsdale, develops remote health monitoring solutions to facilitate the seamless flow of actionable, comprehensive diagnostic data across patient, care professionals and electronic medical records. They produce products that allow individuals with chronic conditions to manage their care outside of the clinical setting, with a goal of empowering patients through a proactive healthcare model that improves efficiencies and reduces healthcare costs.

### Ability Dynamics

www.abilitydynamics.com

Since its inception, Ability Dynamics has had one focus: delivering on its commitment to bringing the most comfortable and reliable line of prosthetics that has ever existed to amputees.

### Brain State Technologies

www.brainstatetech.com

Brain State Technologies offers the leading breakthrough neuro-technology for optimizing brainwave function, in turn improving overall cognitive, emotional and physical performance. Improving brain function has shown to help with injuries, disorders, stress, pain, anxiety, sleeplessness, addictive dependencies, challenges to learning and performance.

### CVS Caremark

www.caremark.com

CVS Caremark is dedicated to helping people on their path to better health as the largest integrated pharmacy company in the United States. Through the company's more than 7,500 CVS/pharmacy stores; its leading pharmacy benefit manager serving more than 60 million plan members; and its retail health clinic system, the largest in the nation with more than 600 MinuteClinic locations, it is a market leader in mail order, retail and specialty pharmacy, retail clinics, and Medicare Part D Prescription Drug Plans. As a pharmacy innovation company with an unmatched breadth of capabilities, CVS Caremark continually strives to improve health and lower costs by developing new approaches such as its unique Pharmacy Advisor program that helps people with chronic diseases such as diabetes obtain and stay on their medications.

### Desert Springs Cancer Care

www.desertspringscancercare.com

Desert Springs Cancer Care is committed to providing the highest quality of oncology/hematology care for their patients. Their services include medical oncology and hematology consultations, chemotherapy infusion, growth-factor injections and on-site laboratory services.

### HealthSouth Scottsdale Rehabilitation Hospital

www.healthsouthscottsdale.com

HealthSouth Scottsdale Rehabilitation Hospital is a 60-bed inpatient rehabilitation hospital that offers comprehensive inpatient, outpatient and home health rehabilitation services designed to return patients to leading active and independent lives. In addition to caring for general rehabilitation diagnoses such as neuro, orthopedic, cardiac, pulmonary, and oncology, HealthSouth Scottsdale Rehabilitation Hospital has specialized inpatient programs for stroke, brain injury, burn, and Parkinson's disease.

### LabCorp

www.labcorp.com

LabCorp provides leading-edge medical laboratory tests and services through a national network of primary clinical laboratories and specialty testing laboratories. LabCorp's laboratory services range from routine testing, such as blood counts and cholesterol tests to highly complex methods that assist in diagnosing genetic conditions, cancers and other rare diseases.

### Mayo Clinic

www.mayoclinic.org/arizona

Mayo Clinic is a nonprofit worldwide leader in medical care, research and education for people from all walks of life. The clinical practice is focused on adult specialty and surgical care in more than 65 medical and surgical disciplines, supported by outstanding programs in medical education and research.

### McKesson Specialty Health

www.mckesson.com

McKesson Specialty Health, a division of McKesson Corporation, empowers the community patient care delivery system by helping community practices advance the science, technology and quality of care. Through innovative clinical, research, business and operational solutions, facilitated by integrated technology systems, they focus on improving the financial health of their customers so they may provide the best care to their patients. McKesson Specialty Health supports more than 3,000 physicians and over 3,100 practices treating conditions including Oncology, Rheumatology, Gastroenterology, Urology, Ophthalmology, Dialysis, and Nephrology.

### Plaza Health Care

www.plazahealthcare.com

Plaza Health Care is a 179 bed privately owned facility serving Arizona and the surrounding States for over 30 years. It specializes in ventilator and tracheostomy weaning, inpatient dialysis, and rehabilitation.

### Primus Pharmaceuticals

www.primusrx.com

Primus Pharmaceuticals develops innovative low-risk, fast-to-market prescription medications that are patented and supported by clinical/scientific research published in prominent medical journals. Primus promotes its brands using a national field sales force targeting specialist physicians in rheumatology, pain management, orthopedics, and obstetrics/gynecology.

### Regenesis Biomedical, Inc.

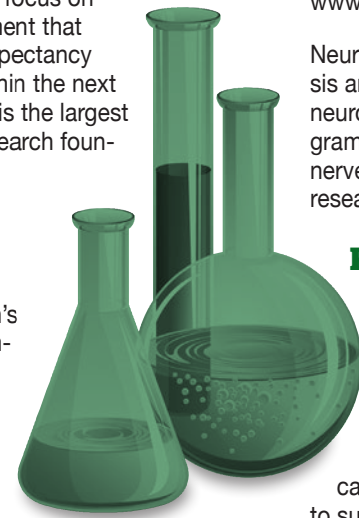
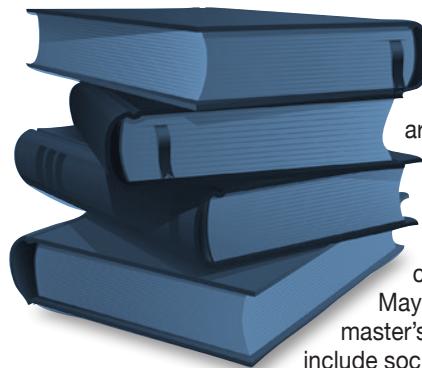
www.regenesishbio.com

Regenesis is a privately held medical technology company focused on developing and marketing noninvasive tissue regenerative medicine products. Regenesis developed, patented, and now markets the Provant® Therapy System. Customers include health care facilities and providers that serve patients treated in acute care hospitals, long-term acute care hospitals, skilled nursing facilities, rehabilitation centers, outpatient clinics, as well as by patients in their homes.

### Scottsdale Healthcare

www.shc.org

Scottsdale Healthcare Shea Medical Center is an economic driver and anchor for the Cure Corridor. The Virginia G. Piper Cancer Center and Scottsdale Healthcare Research Institute are both located on the Shea campus and known for providing precision medicine through an innovative combination of community physicians, academic medicine and genomic research. Among its many medical, educational and research partnerships, Scottsdale Healthcare is a primary clinical research site for TGen providing patients with access to cutting edge technologies.





# Important collaborations help shape Scottsdale's Cure Corridor and impact the community

## TD2 plays pivotal role

In the genomic age, Translational Drug Development (TD2) is an essential link connecting Scottsdale's Cure Corridor of health care providers along Shea Boulevard. TD2 is a world-class cancer drug development company, specializing in getting the newest and best oncology treatments to cancer patients as quickly as possible.

Clinical trials conducted by Scottsdale Healthcare and Mayo Clinic have relied on TD2, to gain access to cutting edge treatments for patients. TD2 has worked with more than 350 biotechnology and pharmaceutical companies identify patients most likely to respond to new, promising

therapies. TD2 also helps discover every avenue to shorten development timelines, while ensuring new drugs are effective and safe.

This also means Scottsdale patients benefit first.

"Our approach ensures a win-win for patients and companies alike by defining which patients are most likely to demonstrate clinical benefit and achieve measurable clinical responses in the earliest phases of clinical development," said Dr. Stephen Gately, President and Chief Executive Officer for TD2. "We are proud to be an anchor of the Cure Corridor."

Winfield Scott founded Scottsdale as a place of health and healing more than 125 years ago. Scottsdale Healthcare continues to leverage that innovative spirit to find new ways to improve and extend the lives of our cancer patients. Our community physicians and physician scientists are working together and collaborating with others across the "Cure Corridor" to find a cure for a disease that touches so many lives and families.



Tom Sadvary  
President and Chief Executive Officer  
Scottsdale Healthcare

## Flexibility, choice and value for community oncology

McKesson Specialty Health makes the community-based practice stronger. McKesson Specialty Health supports more than 3,000 physicians and over 3,100 practices. The nearly 1,000 physicians in The US Oncology Network, which is supported by McKesson Specialty Health, treats more than 750 thousand patients yearly. Arizona Oncology, a practice in The US Oncology Network, has three locations in Scottsdale along the Cure Corridor. Scottsdale - Cancer Transplant Institute Scottsdale Gynecologic Oncology Scottsdale Medical Oncology



US Oncology Research is supported by McKesson Specialty Health and The US Oncology Network: One of the largest community-based oncology research programs in the United States specializing in Phase I-IV clinical trials, with nearly 225 locations. US Oncology Research has been involved in more than 1,200 clinical trials, enrolling more than 55,000 patients since inception.

For more information about McKesson Specialty Health, please visit [www.mckessonsspecialtyhealth.com](http://www.mckessonsspecialtyhealth.com).

## New Vice Dean is named for Mayo Medical School - Arizona Campus

Michele Y. Halyard, M.D., a radiation oncologist at Mayo Clinic in Arizona, has been named vice dean, Mayo Medical School - Arizona Campus. Dr. Halyard will be responsible for undergraduate medical education activities on the Arizona campus and will coordinate Mayo Medical School academic, curricular, and administrative activities and programs in Arizona.

Dr. Halyard's primary focus will be providing Arizona leadership with the support necessary to establish a branch of Mayo Medical School on the Scottsdale campus.

Dr. Halyard earned her M.D. degree from Howard University, where she also completed her residency in radiation oncology. Dr. Halyard completed her fellowship in radiation oncology at Mayo School of Graduate Medical Education. She became a consultant in the Department of Radiation Oncology, Mayo Clinic in Arizona, in 1989 and went on to chair the department.

Dr. Halyard is an associate professor of radiation oncology in the Mayo Clinic College of Medicine and is board certified in therapeutic radiology. Dr. Halyard has had significant Mayo Clinic leadership experience, including membership on the Mayo Clinic Board of Governors in Arizona and the Mayo Clinic Board of Trustees.

Most recently, Dr. Halyard was appointed as an associate medical director for Development in Arizona and she will continue to serve in that role. Dr. Halyard is an accomplished course director in the Mayo School for Continuous Professional Development, a mentor to many residents, medical students

and medical professionals and a notable researcher and author.

Mayo Medical School, based in Rochester, Minn., is working with Arizona State University to expand Mayo's medical school to the Phoenix metropolitan area. Students at all Mayo locations will have the option of completing an ASU master's degree in the science of health care delivery as they earn Mayo medical degrees.

The master's degrees components include social and behavioral determinants of health, health care policy, health economics, management science, biomedical informatics, systems engineering and value principles of health care.

Mayo Medical School enrolls 50 medical students each year. It received 4,327 applications for those spots last year. The Arizona expansion will allow additional students to enroll. The medical school is integrated with medical practice and research at Mayo Clinic.



Michele Y. Halyard, M.D.

# Scottsdale Healthcare's cancer collaborations help make city a destination for world-class care

Here, community physicians join forces with leading physician-scientists and clinical teams to develop new and unique therapies for improving the health and quality of life of their patients.

"This enables patients to find innovative care and treatments close to home," said Mark Slater, PhD, Scottsdale Healthcare vice president of research and chief executive of Scottsdale Healthcare Research Institute. "It also provides help and hope today and advancements for tomorrow."

As a few recent examples:

A breast cancer study conducted at Virginia G. Piper Cancer Center Clinical Trials, a partnership of Scottsdale Healthcare and TGen, has shown that patients do better when their treatment is guided by molecular profiling. Specifically, 52 percent of patients with advanced breast cancer had their disease controlled for a longer time when their treatment was based on addressing the abnormal proteins in their tumor. Each patient's treatment was "personalized," meaning their therapy was based on their individual tumor biology. The study was led

by Scottsdale Healthcare's Virginia G. Piper Cancer Center, TGen and Translational Drug Development (TD2) and sponsored by the Side-Out and CARE Foundations.

A rapid cancer detection program is being developed to provide physicians with information to make timely decisions about a treatment's effectiveness and whether an alternate treatment is appropriate, according to Ronald Korn, MD, PhD, medical director of Scottsdale Healthcare's Virginia G. Piper Cancer Center. Using high-tech radiologic imaging and advanced analysis, the program is being developed through collaboration between local physicians, the Scottsdale Healthcare Research Institute and Virginia G. Piper Cancer Center at Scottsdale Healthcare.

A study led by physicians from Virginia G. Piper Cancer Center Clinical Trials demonstrated that a combination of drugs—Abiraxane and gemcitabine—extends survival of late-stage pancreatic cancer patients compared to standard treatment. The FDA announced its approval for this combination on Sept. 6, 2013.

Scottsdale Healthcare Research Institute has contributed to other cancer clinical trials that have led to FDA approval. This includes a drug for progressive metastatic medullary thyroid cancer, a rare endocrine gland cancer. A drug for metastatic basal cell cancer that was first introduced to clinical trial patients at the Virginia G. Piper Cancer Center received FDA approval in five years—less than half the time normally required for FDA approval.

"The research they do is remarkable and it benefits our community—and beyond," said Dr. Slater, noting that Virginia G. Piper Cancer Center Clinical Trials has seen patients from 48 states and two dozen countries.

"Some of the patients seen in the clinical trials program have not responded to standard care and have been told they only have 12 weeks to live. Despite this, each week, I hear about patients who are celebrating their one, two and three-year anniversaries. They're attending weddings and having birthdays. We're able to extend their quantity and quality of life," Dr. Slater



Daniel D. Von Hoff, MD, who is chief scientific officer for Virginia G. Piper Cancer Center at Scottsdale Healthcare and physician-in-chief for TGen, consults with a patient receiving chemotherapy.

Multiple more oncology clinical trials are underway through the Scottsdale Healthcare Research Institute, including many Phase 1 studies. Phase 1 studies, which are "first in human" studies of new drugs or treatments, are rarely found in a community hospital setting, according to Dr. Slater.

For more information, visit [shc.org/clinicaltrials](http://shc.org/clinicaltrials).

## Why Scottsdale Healthcare's research efforts are unique

### A focus on translating medical innovations into solutions

Scottsdale Healthcare Research Institute is committed to accelerating breakthrough therapies for devastating and debilitating disorders. These conditions often have no solutions, leaving patients and their families without answers and too often without hope.

### Being distinguished in the area of precision medicine

Working closely with TGen, Scottsdale Healthcare Research Institute has developed a precision medicine approach. For example, researchers at Scottsdale Healthcare discovered how to create a molecular profile of a cancer patient's tumor. This enables the tumor's "vulnerabilities" to be identified, such as the biological pathways that allow the tumor to grow. Treatments specifically targeted toward those vulnerabilities can then be developed.

### Dedication to education and collaboration

Having established partnerships with Harvard, Duke, Johns Hopkins, Columbia, University of Pennsylvania, Salk Institute, TGen, University of Arizona, Arizona State University and many pharmaceutical and biotechnology companies, Scottsdale Healthcare Research Institute is "an institute without walls," according to its chief executive, Mark Slater, PhD.

While working on new treatments today, the Scottsdale Healthcare Research Institute also is ensuring that

## New robotic technology unveiled at 21st Century Oncology

Century Oncology of Arizona, one of the nation's largest radiation therapy providers, recently announced the addition of a new robotic patient positioning system in its Scottsdale location. The Protura system by CIVCO Medical Solutions was unveiled at 21st Century Oncology's research headquarters in Scottsdale, Ariz.

"Modern radiation therapy techniques require high precision and accuracy, therefore correct patient positioning is becoming one of the most important issues in radiation oncology," says Steven Finkelstein, M.D., Board Certified Radiation Oncologist and National Director of 21st Century Oncology's research arm, Translational Research Consortium (TRC). "The addition of Protura will provide additional treatment verification and allow for more customized treatment plans tailored to patient needs."

Protura is a robotic patient positioning system that facilitates more accurate radiation therapy delivery with sub-millimeter precision, minimizing radiation exposure to the surrounding healthy tissue.

The system repositions patients remotely, reducing the need to re-enter the treatment room and potentially reducing overall treatment time. This is the first Protura installation in the state of Arizona. For prostate cancer patients, Protura will be utilized with the Varian® Medical Systems Calypso® 4G Localization System™, which offers real-time tracking to enhance tumor targeting during radiation treatment delivery.

"This new system is an exciting development for Scottsdale cancer patients and the Cure Corridor," says Scottsdale Mayor W.J. "Jim" Lane, who attended the unveiling event. "Health and wellness are an integral part of Scottsdale's identity and innovations like Protura continue to position our city as a global leader in advancing healthcare."



Steven Finkelstein, M.D., Board Certified Radiation Oncologist and National Director of 21st Century Oncology's research arm, Translational Research Consortium (TRC).

## Virginia G. Piper Cancer Center provides healing and hope when it's needed most

At the Virginia G. Piper Cancer Center at Scottsdale Healthcare, patients have access to comprehensive care from leading oncologists, state-of-the-art diagnosis and treatment, groundbreaking clinical trials and a wide range of free support services—all in one convenient location.

For more information, contact a Cancer Care Coordinator at 480-323-1339 or [clinicaltrials@sc.org](mailto:clinicaltrials@sc.org).

SCOTTSDALE HEALTHCARE®



Located on the campus at Scottsdale Healthcare Shea Medical Center, the Virginia G. Piper Cancer Center offers complete treatment and support services, as well as groundbreaking clinical trials.

Photo | James L.Christy

Our approach ensures a win-win for patients and companies alike . . . We are proud to be an anchor of the Cure Corridor.

Dr. Stephen Gately  
President and Chief Executive Officer  
TD2



"Mayo Clinic's presence in Scottsdale has provided the opportunity for us to serve this community for over 25 years. We are proud of the many advances made by our physicians and scientists across our clinical practice, as well as in education and research. Being a part of the Scottsdale Cure Corridor is important to Mayo Clinic and will continue to enhance our mission of caring for the patients in this community who need us the most, while supporting robust programs in medical education and scientific research."

Wyatt W. Decker, M.D., M.B.A.  
Vice President, Mayo Clinic  
CEO for Mayo Clinic in Arizona  
Professor of Emergency Medicine,  
Mayo Clinic College of Medicine







**City of Scottsdale Economic Development**

Bio-Life Sciences industry in Scottsdale by the numbers:



\$2.5B in direct economic output  
\$3.5B in indirect output



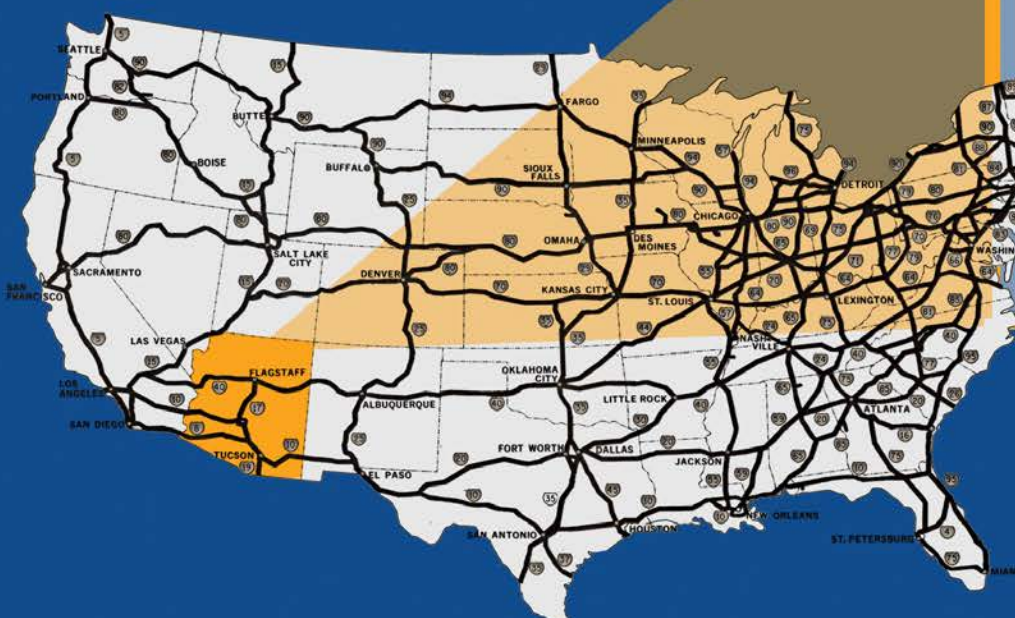
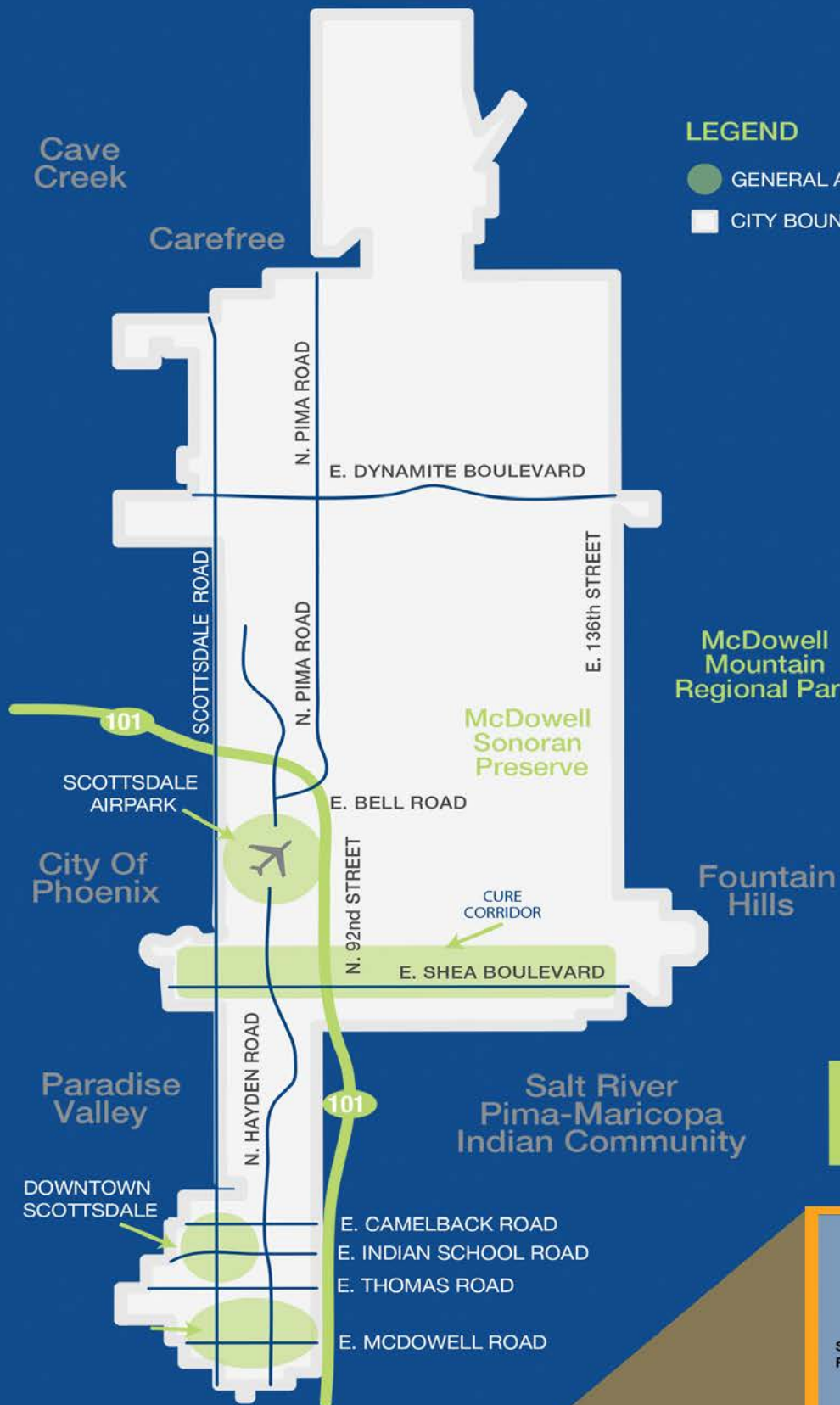
Average salary of \$60,143

Source: Greater Phoenix Economic Council 2013, EMSI 2014

**13%**  
of Phoenix - Metro Area  
Bio-Life Sciences Employment is  
in Scottsdale

**LEGEND**

- GENERAL AREA OF INTEREST
- CITY BOUNDARY



**CHOOSE**  
*Scottsdale*

CITY OF SCOTTSDALE ECONOMIC DEVELOPMENT