

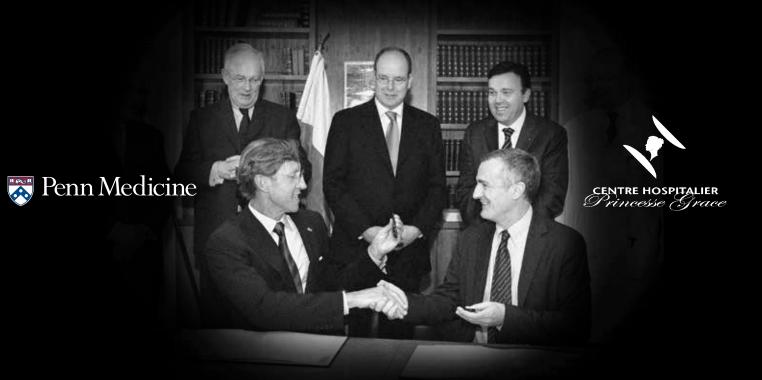
Penn Medicine

PENN MEDICINE OF THE UNIVERSITY OF PENNSYLVANIA, IN THE USA-A PREMIER HEALTH SYSTEM IN THE WORLD-WILL NOW BE AVAILABLE TO PROVIDE UNPRECEDENTED ACCESS TO WORLD-CLASS MEDICAL CARE FOR ALL CITIZENS, RESIDENTS OF MONACO AND THE INTERNATIONAL COMMUNITY THROUGH ITS RESPECTIVE PRACTITIONERS AT PRINCESS GRACE HOSPITAL AND PENN MEDICINE

PRINCESS GRACE HOSPITAL AND PENN MEDICINE PROUDLY INTRODUCE



A HISTORIC MEDICAL PARTNERSHIP HAS BEEN ACHIEVED



GRACE - PENN MEDICINE CONCIERGE SERVICE



AN INTERNATIONAL PARTNERSHIP

DELIVERING WORLD-CLASS CARDIAC AND CANCER CARE

In 2013, Penn Medicine and the Princess Grace Hospital of Monaco announced a formal collaboration in the areas of cancer and cardiac care. This partnership connects physicians at Princess Grace Hospital with Penn Medicine's world renowned Medicine facilities in Philadelphia, clinical and research faculty, including cardiologists, surgeons, oncologists, and radiation therapists.

As part of this joint venture, doctors and professors from both institutions have collaborated on educational initiatives and clinical protocols. Medical teams from Princess Grace Hospital have also traveled to Penn Pennsylvania, USA, to receive training in the most advanced therapies and treatment options available.

THIS PARTNERSHIP WAS ACCOMPLISHED WITH THE FULL SUPPORT OF HSH PRINCE ALBERT II, AND THANKS TO THE GREAT EFFORT AND ENTHUSIASM OF THE MINISTER OF STATE MICHEL ROGER, THE HEALTH AND SOCIAL AFFAIRS MINISTER STÉPHANE VALERI, PRINCESS GRACE HOSPITAL'S DIRECTOR PATRICK BINI AND DIRECTOR OF CARDIOLOGY PROFESSOR NADIR SAOUDI, PENN MEDICINE'S CEO RALPH W. MULLER AND DEAN LARRY JAMESON AS WELL AS MEMBERS OF THE PENN MEDICINE BOARD OF TRUSTEES.



two legacies, one vision. WORLD-CLASS CARE.



Princess Grace Hospital's Professor of Cardiology Nadir Saoudi, MD, FESC, FACC, FHRS.



\$4.3 BILLION OPERATING REVENUE

2,164,567 OUTPATIENT VISITS

75,588 INPATIENT ADMISSIONS

21,864 Employees 2,251

2,23 PHYSICIANS

PENN MEDICINE A proud partner of the

PRINCIPALITY OF MONACO

With an annual operating revenue of \$4.3 billion, more than 2,000 full-time faculty, and a global clientele, Penn Medicine is a world-renowned leader in cutting-edge medical care and research.

The Penn Medicine advantage includes:

+ Four hospitals and a vast network of specialty care centers and primary care clinics.

Penn Medicine, home to America's first medical school, has a 250-year history of healing that spans all areas of care.

- + The Raymond and Ruth Perelman School of Medicine, one of the top five medical schools in America.
- + The Hospital of the University of Pennsylvania, one of the top 10 hospitals in America.
- + The Penn Heart and Vascular Institute, home to one of the largest and most distinguished programs for heart failure care in America.
- + The Abramson Cancer Center, a world leader in cancer research, patient care and education.

- + One of America's leading multi-organ transplant centers.
- + One of America's top medical schools in research and training grants received by the National Institutes of Health.
- + An orthopaedic program that supports 10 distinct sub-specialties and doctors who can treat even the most complex and unique musculoskeletal conditions.
- + One of the largest reproductive research programs in America.

ANNUAL MILESTONES

167,337 OUTPATIENT VISITS

30,839 INPATIENT ADMISSIONS

2,211 EMPLOYEES 259

PHYSICIANS

PRINCESS GRACE HOSPITAL specializing in high-quality, personalized care

"Offering patients treatment and well-being by promoting modern equipment and comfort." - HSH PRINCE ALBERT I (1889 - 1922)

Princess Grace Hospital of Monaco has served Monegasque citizens, residents and members of the international community for more than a century. It is home to the latest treatment technologies, innovative research and a full suite of clinical services, including emergency care, primary care, and specialty services ranging from maternity to gerontology care. Its celebrated cardiology program, which boasts a cutting-edge electrophysiology suite, trains doctors and heals patients from throughout the world.

Princess Grace Hospital of Monaco has mastered the

art—and science of delivering modern medical care in a

luxury setting

The hospital's distinguished oncology program includes several departments—general surgery, medical oncology, radiotherapy and medical imaging—and a highly specialized team of professionals that excels in offering world-class, customized care.

Patients can benefit from a full range of modern medical tests and techniques, including Positron Emission Tomography scans, magnetic resonance imaging, robot chirurgical Da Vinci, tele-surveillance and tailored Cardio Checks.

To cater to its international patient population, Princess Grace Hospital employs medical experts fluent in several languages, including English, Romanian, German, Arabic, Italian and Russian.

For more information, please visit med.upenn.edu/grace-pennmed.

Penn Medicine Director of Cardiac Electrophysiology and Professor of Medicine Francis Marchlinski, MD

THE PENN HEART AND VASCULAR INSTITUTE

A MULTIDISCIPLINARY GROUP OF RESEARCHERS AND PHYSICIANS DEDICATED TO SCIENTIFIC DISCOVERIES AND MEDICAL BREAKTHROUGHS IN HEART AND VASCULAR CARE

Program highlights include:

- + Ranked among the top 10 hospitals in America in the areas of heart care and surgery.
- + One of the largest heart failure care programs in America, offering patients treatments and technologies for end-stage heart failure, including transplantation.
- + One of the top 10 hospitals in America in the areas of heart care and heart surgery.
- + State-of-the-art treatment facilities, including cardiac catheterization laboratories, electrophysiology procedure rooms, hybrid operating rooms and surgical suites.
- + A minimally invasive surgery and robotics program, which

supports cardiovascular surgery techniques that can reduce a patient's post-operative pain, risk of infection, scarring and recovery time.

- + Electrophysiologists practicing corrective therapies to cure complex heart rhythm disorders.
- + Advanced reconstructive techniques that enable cardiovascular surgeons to save—rather than replace—a heart's mitral and aortic valves.
- + A dedication to treating higher-risk patients, even those who may have been told that surgery was not an option.
- + An award-winning center of excellence for heart and vascular research and clinical care.

A look inside Penn Medicine's \$150 million state-of-the-art Roberts Proton Center.

THE ABRAMSON CANCER CENTER

PENN MEDICINE'S CANCER CARE PROGRAMS TREAT ALL TYPES OF CANCER USING THE MOST ADVANCED MEDICAL, SURGICAL AND RADIATION ONCOLOGY TREATMENT OPTIONS AVAILABLE

The Abramson Cancer Center is a cornerstone of Penn Medicine's \$400 million research program and a renowned center for excellence.

Its cancer programs include:

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- + The Roberts Proton Center, one of the largest radiation oncology centers in the world; it includes five treatment rooms, four medical imaging gantries, a fixed beam room, acuity fluoroscopy room and private changing areas housed within 75,000 square feet of modern clinical space.
- + The Rena Rowan Breast Cancer Center, offering the latest diagnostic tests and treatments for all types of breast cancers.
- + The Mariann and Robert MacDonald Women's Cancer Risk Evaluation Center, a world leader on assessing breast and ovarian cancers.
- + The Center for Personalized Diagnostics, which utilizes nextgeneration gene sequencing on tumors to help develop customized cancer care plans.

Program highlights include:

- + The Abramson Cancer Center has been continuously designated as a Comprehensive Cancer Center by the National Cancer Institute (NCI), since 1973, one of only 41 such centers in the country.
- + One of America's largest bone marrow transplant programs.

- + 400 full-time faculty members focused on cancer care, including physicians dedicated to developing breakthrough treatments like immunotherapy, which utilizes a patient's own cells to create cancerfighting vaccines.
- + One of just a few Hematologic Malignancy (leukemia, lymphoma and myeloma) Research Programs approved and funded by the National Cancer Institute.
- + Cutting-edge treatment options such as Gamma Knife® radiosurgery, proton therapy and one of the most experienced and active robotic surgical programs in the world.
- + The birthplace of TransOral Robotic Surgery, a revolutionary surgical procedure to remove tumors of the mouth and throat via minimally invasive techniques that may enable cancer patients to dial back or not require radiation treatments.
- + A full range of supportive care services, including:
- Complementary and alternative therapies.
- Nutritional counseling.
- Pain and symptom management.
- Reconstructive surgery.
- Rehabilitation services.
- Stress reduction.
- Survivorship planning.
- Customized treatment plans.

World-renowned electrophysiologist Nadir Saoudi, MD, FESC, FACC, FHRS, studies a patient's heart at Princess Grace Hospital. AND Y COLORED

PRINCESS GRACE HOSPITAL HIGHLIGHTS CARDIAC CARE PROGRAM

A TALENTED TEAM OF EXPERTS DELIVERING CUTTING-EDGE CARDIOLOGY CARE IN MONACO'S STATE-OF-THE-ART FACILITIES

Professor Nadir Saoudi has led Princess Grace Hospital's new cardiology unit since 2001. Professor Saoudi is an internationally acclaimed electrophysiologist who pioneered several cardiology procedures—including the world's first atrial flutter treatment by catheter ablation. In addition to serving as a professor in Monaco and an adjunct professor of cardiology at the University of Pennsylvania, Professor Saoudi has held several prestigious posts with international societies. He is a current member of the French National Academy of Medicine, the former head of the Arrhythmia Group of the French Society of Cardiology, and a prestigious French Legion of Honour medal recipient for medical services offered to his country.

Princess Grace Hospital's cardiology program, which regularly treats patients from overseas, includes general and intensive care wards, a non-invasive test unit, electrophysiology laboratory and operating room. Procedures range from installing the latest defibrillators and pace makers—including those for blood pressure control—to implanting innovative miniature recorders for long-term electrocardiography monitoring as well as more invasive surgeries.

The unit's electrophysiology laboratory has amassed several leading-edge technologies. These include the Remote Magnetic Navigation System, which allows doctors to expertly navigate a patient's heart while minimizing the risk of adverse cardiac events. Robotic navigation, used in atrial fibrillation and ventricular tachycardia ablation procedures, helps doctors efficiently and quickly treat some of the most difficult medical cases in the world. The laboratory's world-renowned team frequently contributes to international medical journals and speaks at major cardiology events.

The department is currently installing a revolutionary heart mapping system, which it will unveil at the next Monaco USA Arrhythmia Course. The annual course, jointly organized with the University of Pennsylvania, shares new or rarely taught concepts of arrhythmia to cardiology experts from around the world. This event highlights Monaco's desire to serve as a world leader in arrhythmia and heart disease care.

Princess Grace Hospital's Charles Ferrari, MD, operates on a patient using the da Vinci Surgical System.

PRINCESS GRACE HOSPITAL HIGHLIGHTS CANCER CARE PROGRAM

DEDICATED TO TREATING ALL TYPES OF CANCERS IN THE PRINCIPALITY WITH INNOVATIVE TECHNIQUES, WHILE ADVANCING GLOBAL RESEARCH

As a world leader in oncology, Princess Grace Hospital pairs worldclass treatments and technologies with discreet, high-end personalized care. Princess Grace Hospital's cancer specialists are members of several national and international scientific societies, such as the American Society of Clinical Oncology and the American Society for Radiation Oncology. In addition to organizing international conferences, they regularly collaborate with world scholars on treatments and research.

Princess Grace Hospital's Chief of General Surgery, Dr. Charles Ferrari, has one of the strongest and most diverse clinical track records in treating digestive and thoracic cancers. His team also manages the hospital's breast cancer division, which offers breast reconstruction and gynecological therapies.

Dr. Christian Choquenet's unit utilizes the da Vinci Surgical System—cutting-edge robotic equipment—to treat urologic cancer. This system enables surgeons to perform the most delicate of operations, including a minimally invasive ablation technique for treating prostate cancer.

The Princess Grace Hospital's medical oncology department,

headed by Drs. Bruno Taillan and Georges Garnier, is deeply involved in international clinical research and initiating new treatment therapies. Today, doctors can analyze tumors on a molecular level to identify new medications that may benefit patients where other therapies have failed.

Dr. Cécile Ortholan-Negre, leader of radiotherapy, has authored studies in several major American and European medical journals. Her unit—run by a group of physicists under the direction of Dr. Benjamin Serrano—delivers safe, first-class care while championing new methods of radiation therapy.

Princess Grace Hospital's cancer patients can receive targeted irradiation for metastases, which produces results in just a few short sessions. This radiotherapy approach uses pinpoint precision to preserve healthy tissue and can succeed where other treatment methods have failed.

The hospital's Professor Marc Faraggi is a world-renowned expert in nuclear medicine. His department utilizes the latest generation of high-resolution positron emission tomography, which enables doctors to track the specific metabolic rates of tumors.

ACCESS TO WORLD-CLASS HEALTH CARE

 $f \ge f$ PHILADELPHI NORTH AFRICA

\$4.3 BILLION OPERATING REVENUE

\$600 MILLION IN RESEARCH PROGRAMS

J E

NIDDLI EAST

INTRODUCING **GRACE - PENN MEDICINE**



Penn Medicine's Bert O'Malley, MD and Gregory Weinstein, MD, have developed and perfected TransOral Robotic Surgery.

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GRACE-PENN MEDICINE PERSONALIZED HEALTH CARE

PERSONALIZED HEALTH CARE SERVICES WITH A GLOBAL REACH

UNDER THE HIGH PATRONAGE OF HSH PRINCE ALBERT II, PENN MEDICINE AND PRINCESS GRACE HOSPITAL ARE EXPANDING THEIR AFFILIATION BEYOND THE FIELDS OF CANCER AND CARDIAC CARE. THIS NEW ERA OF COLLABORATION— A CONCIERGE SERVICE CALLED *GRACE-PENN MEDICINE*—WILL GIVE THE MONEGASQUE CITIZEN, RESIDENT AND INTERNATIONAL COMMUNITY CUSTOMIZED ACCESS TO A COMPREHENSIVE NETWORK OF PENN MEDICINE EXPERTS AND CARE.

Grace-Penn Medicine is honored to offer:

- + Personalized health care services—via a Monaco-based office—to address all medical needs and concerns.
- + Attentive medical oversight by an executive medical director.
- + Access to world-class medical care, including Princess Grace Hospital and Penn Medicine's

partnership in the areas of cancer and cardiac care.

- + **Coordinated services** through Penn Global Medicine.
- + **Opportunities to participate** in cutting-edge research and clinical trials.
- + **Optional membership** in the Penn Passport program.

Penn Global Medicine connects patients with care anytime—anywhere. 100000

PENN GLOBAL MEDICINE

COORDINATING PENN MEDICINE'S FIRST-CLASS CARE FOR INTERNATIONAL PATIENTS AND FAMILIES

Penn Global Medicine partners closely with embassies, health ministries, governments, and insurance companies as well as referring physicians and hospitals to expedite all phases of a patient's treatment at a Penn Medicine facility in Philadelphia, Pennsylvania. During each visit, Penn Global Medicine patients receive the highest quality care available.

Penn Global Medicine offers individuals and families from across the globe:

- + Inbound medical care, including the latest innovative and evidencebased treatments, delivered by doctors at Penn Medicine and its affiliated provider network.
- + **Specialty consultations** by world-renowned doctors and professors.
- + Remote Medical Second Opinions, which begin with a comprehensive medical record review.

For more information, please visit med.upenn.edu/grace-pennmed.

Jack Ende, MD, Executive Medical Director of Penn Signature Services, which includes Penn Global Medicine and Penn Passport, confers with his colleagues.

> Jack Ende, MD Department of Meda

PENN MEDICINE BREAKTHROUGHS in medical research and patient care

THE OUTSTANDING PHYSICIANS AND SCIENTISTS AT PENN MEDICINE ARE WORLD LEADERS IN DISCOVERING THE CAUSES OF DISEASE AND DEVELOPING NEW TREATMENTS. WITH OVER 6,000 ACTIVE STUDIES AND \$600M USD ANNUALLY IN BIOMEDICAL RESEARCH, INVESTIGATING HUNDREDS OF DISEASES, EACH DAY BRINGS NEW ADVANCES AT PENN MEDICINE. EXAMPLES OF PENN MEDICINE'S RECENT DISCOVERIES AND THEIR TRANSLATION TO CARE INCLUDE:

- + Pioneering work to engineer a patient's immune system to attack leukemia and myeloma in children and adults who had failed all prior treatments.
- + Novel gene therapy treatments to forms of inherited blindness as well as life threatening cardiovascular conditions linked to excessively high cholesterol.
- + Immunotherapy for the treatment of pancreatic and other tumors that are refractory to standard chemotherapy and radiation treatments.
- + A comprehensive proton radiation

therapy center for the treatment of cancer while minimizing damage to healthy tissue.

- + A personalized, patient-centric approach to care utilizing precision medicine to map the molecular components and develop treatment strategies targeted to individual disease.
- Penn's large research budget and extensive, state-of-the-art research facilities keep it as a world leader in the development and conduct of many new protocols.

To determine patient eligibility for these and other exciting new advances please visit our website: **med.upenn.edu/grace-pennmed.**

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