

## Unparalleled Leadership

Robert A. Figlin's role as the founder and director of City of Hope's Kidney Cancer Program is a personal one. He spearheaded a kidney cancer program at UCLA in the mid-1980s, a novel multidisciplinary effort at the time. Thereafter, he suffered the loss of his mother to kidney cancer. Thus, the importance of realizing the promise of translational research — speeding discoveries from the lab into viable treatments and potential cures — is Figlin's passion. He presently serves as City of Hope's interim director of the Comprehensive Cancer Center, associate director for Clinical Research, chair of the Division of Medical Oncology & Therapeutics Research, and as the Arthur and Rosalie Kaplan Professor of Medical Oncology. Figlin is a nationally recognized leader in genitourinary and thoracic oncology. He has written over 170 peer-reviewed articles, published 50 book chapters and edited a medical school textbook on renal and adrenal tumors, literally influencing the education of future and current medical practitioners. He serves as editor for the peer-reviewed Kidney Cancer Journal. He also is board certified in medical oncology and internal medicine.

Figlin's leadership as principal investigator in the initial research concerning the drug Sunitinib has provided new hope for patients suffering from kidney cancer. His concurrent efforts in studying the drug Sorafenib



Robert A. Figlin, M.D., F.A.C.P., interim director, Comprehensive Cancer Center; associate director for Clinical Research, chair of the Division of Medical Oncology & Therapeutics Research, Arthur and Rosalie Kaplan Professor of Medical Oncology and director of the Kidney Cancer Program, is studying novel ways to treat kidney cancer that spare healthy tissues.



Nancy Moldawer, R.N., M.S.N., nursing director of City of Hope's Kidney Cancer Program

similarly has offered new promise for improved patient survival. Both clinical trial results were published in the New England Journal of Medicine. His interest in developing novel cancer therapies which stimulate the immune system to attack cancer led to his contributions to modern immunotherapeutics. In particular, his efforts helped develop **high dose interleukin-2**, a leading therapy that encourages long-term remission in patients treated for renal cell carcinoma. Ever committed to developing better kidney cancer treatments without side effects and ultimately a true cure for the disease, Figlin's dedication, creativity and patient-centered resolve remains strong.

Nancy Moldawer, R.N., M.S.N., nursing director of City of Hope's Kidney Cancer Program, is highly regarded within the kidney cancer community for her exceptional investigative efforts and her emphasis on raising patient quality of care. Moldawer's experience with novel anti-cancer vaccines, immunotherapy and other targeted therapies places her at the forefront of modern kidney cancer research. City of Hope's approach unites

all healthcare stakeholders to develop successful and integrated case management. Bringing her perspective and experience from nursing oncology, Moldawer enhances our team's clinical methodology in providing the utmost care for all our patients.



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## Kidney Cancer Program

Advanced Medicine: Robotic Surgery and Targeted Therapies



## The Threat of Kidney Cancer

At City of Hope, we believe highly targeted and precise treatment for kidney cancer is possible without the side effects associated with traditional therapies. Elsewhere, standard treatment ordinarily involves surgery, immunotherapy (spurring the immune system to attack cancer) and less frequently chemotherapy and radiation. Yet, chemotherapy and radiation harm healthy and cancerous cells alike. They are also not very effective at treating this disease. Instead, we are aggressively pursuing innovative and more effective treatments that exclusively attack cancer without harming normal tissues. Our patient-centered approach is dedicated to enhancing patients' quality of life while curing their disease and includes supportive care. This year, nearly 52,000 people will be diagnosed with kidney cancer in the U.S. and almost 13,000 will die from this disease. We are committed to eradicating this threat.

## Our Kidney Cancer Program: Advancing New Frontiers

### Surgical Expertise and Leading-Edge

### Technology That Improves and Extends Lives

City of Hope has coupled two powerful approaches to eradicate kidney cancer: our sophisticated surgical resources and our bold research pursuits. For the vast majority of patients with kidney cancer, the primary course of care will require surgical treatment. In the past, kidney cancer surgery meant loss of the kidney. Today, our use of robotics in performing laparoscopic procedures offers patients treatment in removing only the tumor, while providing added benefits of fewer complications, reduced recovery time and less invasive treatment. Our extensive experience and continuing refinement of surgical procedures enhances patient care and the scientific literature on standards for surgical kidney cancer treatment.

Our prized surgical assets include the da Vinci Surgical System — the most advanced robotic technology available — and we are the only institution to operate four of them. We have performed many procedures to treat kidney cancer/renal masses involving robotics, including radical nephrectomy (kidney removal), nephron-sparing surgery (kidney saving surgery) and radio-frequency ablation (tumor removal). Our highly trained surgical staff have performed an extensive number

of complicated surgical procedures across a wide variety of genitourinary cancers. This experience translates into refined surgical expertise for better patient care. Moreover, recent data suggests that hospitals performing high volume intake of specialized surgeries confer higher patient survival rates than hospitals with lower volumes.

City of Hope was the first institution to operate two TomoTherapy Hi-ART systems, a leading technology that provides radiation therapy with surgical precision to tumor cells, minimizing harm to healthy tissues. Our radiation oncologists performed much of the early research on radiotherapy through the TomoTherapy system and share the benefits of this expertise with physicians around the world — as well as with patients at City of Hope.

### Targeted Therapies That Improve Patient Quality of Life While Eradicating Cancer

Our researchers have launched bold new studies targeting the underlying biological processes that aid cancer development. These new therapies are aimed at attacking the regulatory mechanisms supporting tumor cell growth, without harming neighboring healthy cells. Hence, we call them **targeted therapies**. In the last few years, new hope has arrived for kidney



Illustration of human kidneys.

patients with the advent of advanced therapeutics that exploit gene abnormalities and biological signals that promote cancer. We are aggressively pursuing this scientific frontier. Our scientists are exploring molecules that halt the proliferation of tumor cells and impede the growth of blood vessels (angiogenesis) feeding cancer. The drugs do this by blocking chemical reactions that are limited to tumor cells and not present in normal tissues, so normal cells remain unharmed. Consequently, by starving and stunting the cancer, our doctors prevent the cancer from spreading and growing. This, in turn, means that patients live longer, feel better and enjoy an improved quality of life.

Two examples of targeted therapy are **Sunitinib** and **Sorafenib**, recently approved by the FDA. As part of a nationwide cooperative group, we have launched a Phase III clinical trial to compare their ability to prevent or delay kidney cancer recurrence in patients who have undergone kidney cancer treatment and who are at high risk of kidney cancer recurrence. Results from this study will be used to develop and enhance current treatment regimens.

Our researchers are hopeful concerning these two new therapies in light of recent significant studies. One important Phase III trial was conducted by Robert A. Figlin, M.D., F.A.C.P., City of Hope's chair of the Division of Medical Oncology and Therapeutics

Research and holder of the Arthur and Rosalie Kaplan Professor of Medical Oncology. This study demonstrated that the response rates of patients receiving Sunitinib was more than double that of those receiving interferon alfa, a standard line of treatment. Moreover, patients treated with Sunitinib reported feeling less fatigue with higher quality of life. The same optimism is shared regarding Sorafenib which was also involved in a Phase III trial. Once again, survival was dramatically improved with the use of Sorafenib.

Recent advances as to two other new agents, **Temsirolimus** and **Bevacizumab**, suggest additional promise in attacking cancer's blood supply and in extending patient survival. Current trials by our scientists include new investigational drugs, like **AZD2171** which halts blood vessel formation in tumors, and **RAD001** which impedes tumor cell division, among others. Impatient to find a cure, our researchers also are exploring second and third generation treatments.

## Help Us Conquer Kidney Cancer

Individual donors play a major role in enabling our investigators to pursue studies that have and will continue to save lives worldwide. We invite you to become a partner with City of Hope to fulfill the mission of the Kidney Cancer program: saving more lives. Our development staff welcomes your inquiries as to how you can play an integral role in helping us achieve our lifesaving mission. Please contact our Development Center at 800-232-3314 or via e-mail at [giftplanning@coh.org](mailto:giftplanning@coh.org). Thank you for your consideration of support. To learn more about our kidney cancer treatment and research initiatives, please visit [www.cityofhope.org](http://www.cityofhope.org).