Preface

Hepatocellular carcinoma (HCC) ranks among the most common cancers worldwide, and is one of the leading causes of cancer-related death. Over the last three decades, the age-adjusted incidence of HCC in the US has tripled, and it has rapidly become one of the most common causes of cancer-related death in white men. HCC continues to be a major cause of mortality in Asia as well, where the epidemic of hepatitis B contributes to the development of HCC. Worldwide, there are more than 600,000 cases of HCC every year, and the five year mortality is nearly 90%.

Multiple treatment options are available for HCC, including surgical resection, transplantation, ablation via radiofrequency or ethanol injection, and transarterial therapies such as chemoembolization. Radiation has historically been avoided in patients with HCC, due to the sensitivity of the liver to radiation-induced liver disease, but in the past decade new radiation techniques have resulted in the ability to offer patients radiation as part of the treatment algorithm. With new treatments available, survival has improved over the past decade, and will continue to improve as patients are screened and diagnosed earlier and new treatments are employed.

Treatment of HCC is complex, and involves understanding of the cancer as well as the underlying liver disease. This special issue of *Translational Cancer Research* serves as a review of all issues surrounding diagnosis and treatment of HCC. Howard Monsour from The Methodist Hospital in Houston, TX reviews the epidemiology and risk factors for HCC, which is important to understand for development of appropriate screening programs. Tom Aloia and colleagues from MD Anderson Cancer center will review the indications and outcomes for surgical resection. Dr. Gish is reviewing the efficacy of intra-arterial therapies, alone or in combination with small molecules. Dr. Chiao wrote a very good review on liver transplantation for HCC, and Drs. Topp and Sigal have outlined the new targeted therapies under approval and in trials currently. Our issue finishes with an excellent review of Stereotactic Body Radiation by Drs. Hattangadi-Gluth, and Paravati, from University of California. The use of radiation is an important new treatment modality that should be considered in appropriate patients.

We are grateful to all of our contributors for contributing to this important issue that addresses one of the most difficult to treat cancers. Their expertise will continue to contribute important advances in the field of HCC treatment for years to come. I would like to personally thank Nancy Zhong for her assistance, as well as Dr. Giap for this invitation to be guest editor for this important issue. I am honored to contribute to the field.

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Footnote

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