

THE ROLE OF IGF-1	<ul style="list-style-type: none"> • Insulin-like Growth Factor-1 (IGF-1) plays an important role in cellular physiology, especially in the regulation of cell growth. • The IGF system plays a key role in normal growth and development in humans and animals. A 1993 experiment in mice demonstrated that mice lacking the IGF-1 Receptor (IGF-1R) were born half the size of normal mice, underscoring the important role of the system in the regulation of cell and body size.¹
IGF-1R AND CANCER	<ul style="list-style-type: none"> • IGF-1 binds to the IGF-1 Receptor and activates signals for tumor cell proliferation and survival. Blocking the IGF-1R pathway can increase apoptosis (programmed cell death), and may decrease cell growth and tumor formation.² • Over-expression of IGF-1R and/or high levels of its ligands, IGF-1 and IGF-2, have been implicated in tumorigenicity (causing tumors) and chemotherapeutic resistance.² • Population studies have shown that elevated IGF-1 serum levels are associated with an increased risk of breast, colon, prostate, lung and other cancers.^{2,3}
RATIONALE FOR TARGETING IGF-1R IN CANCER	<ul style="list-style-type: none"> • IGF-1R is increasingly recognized by the medical community as a relevant target for investigation in cancer research. • Preclinical research indicates that inhibition of the IGF-1R pathway can enhance the activity of cytotoxic, biological and hormonal agents, as well as radiation.² • This research provided the rationale for clinical development of agents targeting IGF-1R.

¹ Garber K. IGF-1: Old Growth Factor Shines as New Drug Target. JNCI 2005;97:790-792.

² Ryan PD, Goss PE. The Emerging Role of the Insulin-Like Growth Factor Pathway as a Therapeutic Target in Cancer. The Oncologist 2008;13:16-24.

³ Pollak MN, Schernhammer ES, Hankinson SE. Insulin-Like Growth Factors and Neoplasia. Nat Rev Cancer. 2004 Jul;4(7):505-18.

For additional information, please visit: <http://www.pfizer.com/asco>.