

**Small molecules approved for targeted therapy**

<b>Family</b>	<b>Molecule</b>	<b>Indications</b>
Tyrosine kinase inhibitors	(1) Anti-EGFR → Gefitinib (2) Anti-HER 1 → Erlotinib (3) Anti-HER 2 → Lapatinib (4) bcr-abl, PDGF, c-KIT → Imatinib	NSCLC NSCLC Metastatic Breast cancer GIST, CML
Mammalian Targets of Rapamycin Kinase inhibitors	(1) Temsirolimus (2) Everolimus	STS, Ca Breast, RCC
Farnesyl Transferase Inhibitors	(1) Tipifarnib (2) Lonafarnib	Ca Pancreas (advanced)
VEGF inhibitors	(1) Sunitinib (2) Sorafenib (3) Valdetinib	Refractory GIST & mRCC Advanced RCC Metastatic RCC
Anti-angiogenesis	Thalidomide, Lenalidomide	Multiple myeloma
Protesome inhibitor	Bortezomib	Multiple myeloma (refractory), NHL

**Monoclonal Antibodies approved for targeted therapy**

<b>Antibody</b>	<b>Nature</b>	<b>Target</b>	<b>Indication</b>	<b>Setting</b>
Rituximab	Chimeric	CD 20	NHL	Primary/ relapsed
Cetuximab	Chimeric	EGFR	Ca H&N, CRC	Relapsed
Ibritumomab Tiuxetan	Mouse-RIT (Y <sup>90</sup> / I <sup>111</sup> )	CD 20	NHL	Relapsed & refractory
Tositumomab	Mouse-RIT (I <sup>131</sup> )	CD 20	NHL	Relapsed & refractory
Alemtuzumab	Humanised	CD 52	CLL/SLL	Relapsed
Trastuzumab	Humanised	HER-2/neu	Ca Breast	Metastatic
Bevacizumab	Humanised	VEGF	CRC, Ca Breast	Metastatic
Panitumumab	Human	EGFR	CRC	Metastatic
Gemtuzumab ozagamicin	Humanised	CD 33 (+ calicheamicin)	AML	Relapsed, non- BMT candidates