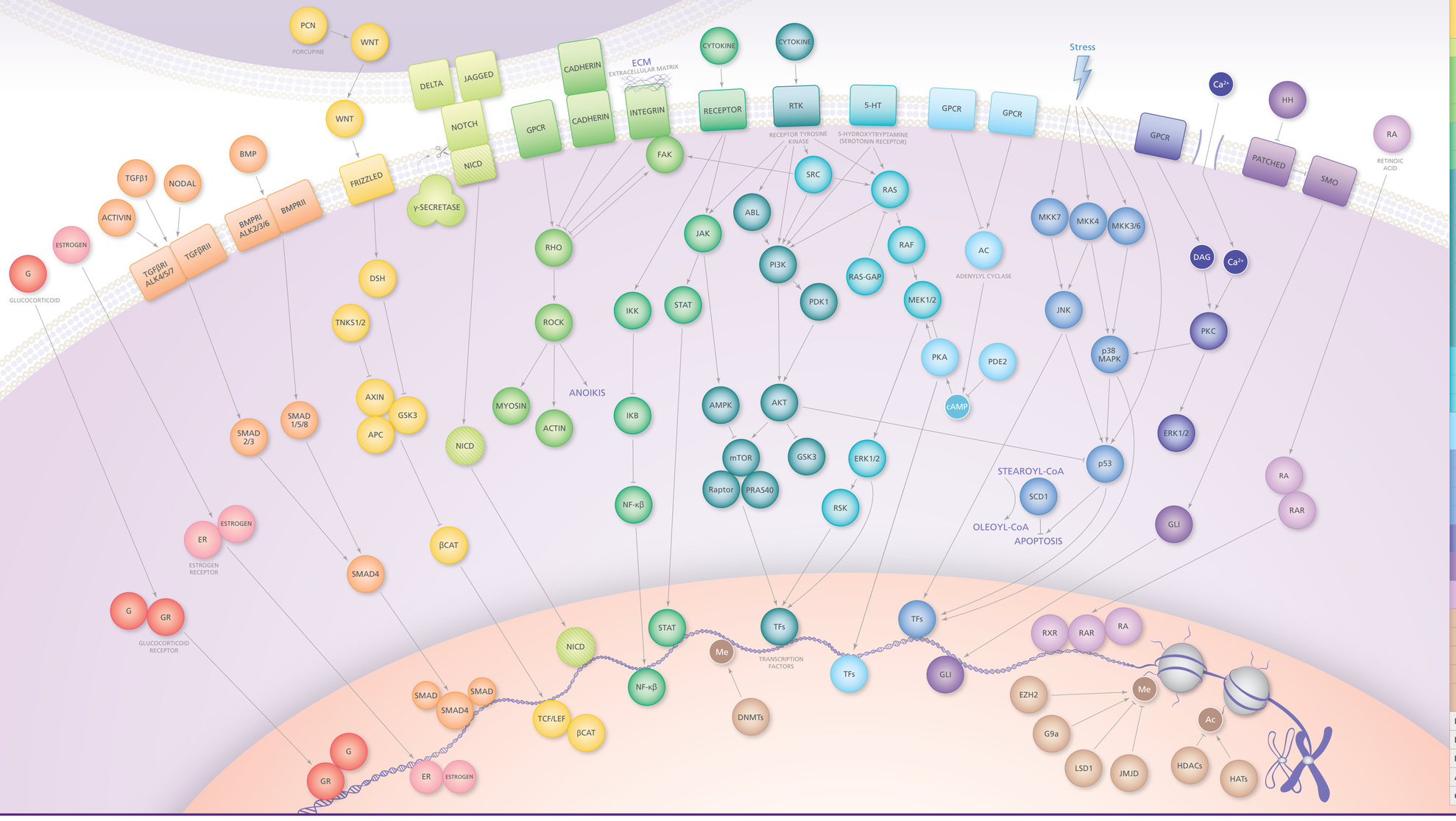
Small Molecules, Big Impact
In Cancer Research



PATHWAY OR TARGET	SMALL MOLECULES
Glucocorticoid	**Activator:** Dexamethasone
Estrogen	**Modulators:** Tamoxifen, Raloxifene
Activin/Nodal/TGFβ	**Inhibitors:** SB431542, LY364947, RepSox **Activators:** IDE1, IDE2
BMP	**Inhibitors:** Dorsomorphin, LDN193189
WNT	**Inhibitors:** IWP-2, IWP-3, IWP-4, XAV939, IWR-1-endo, KY02111 **Activators:** CHIR99021, BIO, Kenpaullone, SB216763, TWS119, CHIR98014 **Modulators:** IQ-1, ID-8
Notch	**Inhibitors:** DAPT, LY411575, DBZ
RHO/ROCK	**Inhibitors:** Y-27632, Thiazovivin, (-)-Blebbistatin, Pyrintegrin **Activator:** 1-Oleoyl Lysophosphatidic Acid
FAK	**Inhibitor:** FAK Inhibitor 14
JAK/STAT	**Inhibitors:** AG-490, Ruxolitinib, TG101348, WHI-P131, WHI-P154
NF-κB	**Inhibitors:** CAY10512, (S)-MG132, QNZ, Resveratrol
AMPK	**Activators:** A769662, Metformin, AICAR
Tyrosine Kinases (broad range)	**Inhibitors:** Vandatenib, SU5416
EGFR	**Inhibitors:** AG-490, Gefitinib, Lapatinib
FGFR	**Inhibitor:** PD173074
MET	**Inhibitors:** SU11274, Tivantinib
ABL	**Inhibitors:** Dasatinib, Nilotinib, Imatinib
mTOR	**Inhibitors:** AZD8055, Everolimus, Ku-0063794, Rapamycin, Torin1
PI3K/AKT	**Inhibitors:** Akt Inhibitor VIII, Akt Inhibitor X, GDC-0941, KP372-1, LY294002, Wortmannin **Activator:** PS-48
MEK/ERK	**Inhibitors:** PD0325901, PD98059, Pluripotin, Reversine, AZD6244, Refametinib, Trametinib, U-0126
Ras/Raf	**Inhibitors:** AZ628, Dabrafenib, PLX4032
SRC	**Inhibitors:** Dasatinib, PP1
cAMP	**Inhibitor:** HA-100 **Activators:** Prostaglandin E2, Forskolin, EHNA, IBMX, Rolipram
p38 MAPK	**Inhibitors:** SB203580, BIRB-796, SB202190
JNK/c-Jun	**Inhibitor:** SP600125
p53	**Inhibitors:** Cyclic Pifithrin-α, Pifithrin-μ
Oleic Acid Biosynthesis	**Inhibitor:** PlurSln-1
PKC	**Inhibitors:** (+)-Bay K8644, HA-100, Gö6983 **Activators:** Prostaglandin E2, (-)-Indolactam V
Hedgehog	**Inhibitors:** Cyclopamine, HPI-1 **Activators:** Purmorphamine, GSA10, SAG
Retinoids	**Activators:** 9-cis Retinoic Acid, All-Trans Retinoic Acid, CD437, TTNPB, AM580, EC23
DNA Methyltransferase	**Inhibitors:** 5-Azacytidine, RG108, Zebularine, RSC-133
Histone Methyltransferase	**Inhibitors:** 3-Deazaneplanocin A, BIX01294
Histone Demethylase	**Inhibitors:** Tranylcypromine, KP372-1, JIB-04
Histone Acetyltransferase	**Inhibitor:** Garcinol
Histone Deacetylase	**Inhibitors:** Sodium Butyrate, Trichostatin A, Valproic Acid
Mircotubule Organization	**Inhibitor:** Paclitaxel
HIF-1	**Inhibitor:** CAY10585
Protein Trafficking	**Inhibitor:** Brefeldin A
Aurora Kinase	**Inhibitor:** MK0457
Cyclin/CDK	**Inhibitor:** SU9516

STEMCELL Technologies is committed to making your research work. As Scientists Helping Scientists, we support you with novel products of consistent, unfailing quality and unparalleled technical support.

Small Molecules for Cancer Research

With demonstrated effects on survival, proliferation, migration, invasion or differentiation of cancer cells, or immunomodulation of host cells, small molecules are increasingly transforming cancer research projects. Small molecules from STEMCELL Technologies are being widely used in high impact research to target key pathways in cancer biology. For more information and examples of how these molecules are being used in cancer cell research, visit **www.stemcell.com/smallmolecules**.

Detection of Cancer Stem Cells

To detect cancer stem and precursor cells in multiple tissue types, use **ALDEFLUOR™**. A highly effective tool for non-immunological identification, the ALDEFLUOR™ fluorescent reagent system offers a novel approach to identify, evaluate and isolate stem and progenitor cells based on their expression of aldehyde dehydrogenase enzyme.

Isolation of Rare Cell Types

Our innovative cell isolation products provide a simple, fast and effective method for isolating rare cell types with high purity and recovery. Use **RosetteSep™**, **EasySep™** and **RoboSep™** cell isolation platforms to enrich circulating tumor cells (CTCs) from whole blood or PBMCs; multiple myeloma cells from bone marrow or whole blood; or untouched B cells from chronic lymphoid leukemia (B-CLL) patient samples for downstream analysis and research.

Culture of Cancer Cells

Perform functional studies on cancer cells to evaluate how these cells respond to cytotoxic compounds and to study the mechanisms of malignant transformation and tumor progression, using STEMCELL's specialized media and cultureware for a wide variety of tissue types.

- **AggreWell™** plates for 3D spheroid and tumorsphere formation
- **MammoCult™** media for the study of breast cancer cells
- **MethoCult™** semi-solid methylcellulose media for the study of leukemic cells
- **StemSpan™** serum-free media for the study of leukemic cells
- **NeuroCult™** media for the study of brain tumor stem cells

STEMCELL™ TECHNOLOGIES

Scientists Helping Scientists™ | WWW.STEMCELL.COM

DOCUMENT #27001 | VERSION 1.0.0