Young Kee Shin, M.D., Ph.D.

Professor

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Education

- Ph.D. Seoul Nat'l Univ. (2000)
- M.D. Seoul Nat'l Univ. (1996)

Work Experiences

- 2001 - 2004: Seoul Nat'l Univ. Post-Doc fellow
- 2004 - 2008: SNU, Assistant Professor, College of Pharmacy
- 2008 - 2014: SNU, Associate Professor, College of Pharmacy
- 2014 - present: SNU, Professor, College of Pharmacy
- 2019 - present: SNU, Dean of Dept. of MMBS

Entrepreneurial Experience

- 2007 ABION founder
- 2011 Gencurix co-founder

Nonprofit Organization Experience

- 2016 Logone Bio-Convergence Research Foundation founder

Selected Publications (Recent 2 years)

- Aglycoengineered interferon-β mutein (R27T) generates pro longed signaling by an altered receptor-binding kinetics. *Front. Pharma.* (2019)
- Comparison of GenesWell BCT Score With Oncotype DX Recurrence Score for Risk Classification in Asian Women With Hormone Receptor-Positive, HER2-Negative Early Breast Cancer. *Front. Oncol.* (2019)
- BCT score predicts chemotherapy benefit in Asian patients with hormonereceptor-positive, HER2-negative, lymphnode-negative breast cancer. *PloS One.* (2018)
- Droplet digital PCR-based EGFR mutation detection with an internal quality control index to determine the quality of DNA. *Scientific Reports.* (2018)

Laboratory of Molecular Pathology & Cancer Genomics

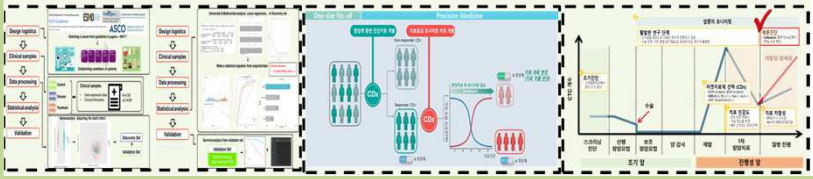
The aim of Lab. of Molecular Pathology & Cancer Genomics lies on comprehensive understanding of carcinogenesis mechanism, discovery and validation of cancer biomarker, and the co-development of Companion Diagnosis (CDx) and new drugs based on the molecular pathogenesis.

Co-development of CDx & Anti-cancer Therapeutic Drugs

1. Companion Diagnostics(CDx)

- CDx kits can predict patient sensitivity to targeted cancer therapy
- Analytical Validation, Clinical Validation, Clinical Utility
- Monitoring cancer patients

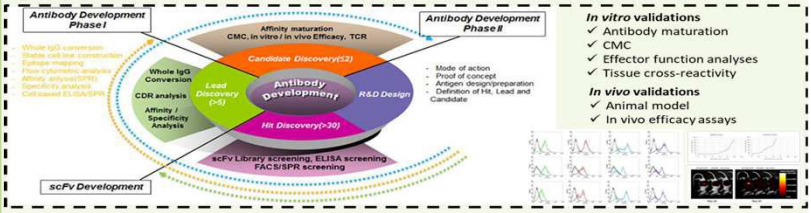
Development of Biomarker **Companion Diagnostics Development & Monitoring**



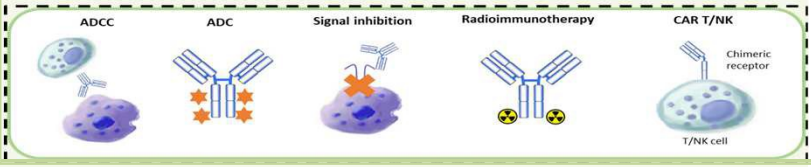
2. Anti-cancer Therapeutic Drugs

- Therapeutic antibodies are widely studied and used in many medical applications including therapy against cancer, autoimmune, and infectious diseases
- Antibodies can take various forms when applied in therapy including antibody-drug conjugates, chimeric antigen receptors, inducers of ADCC, or activating directly as signal inhibitor or activator

Development process of antibodies

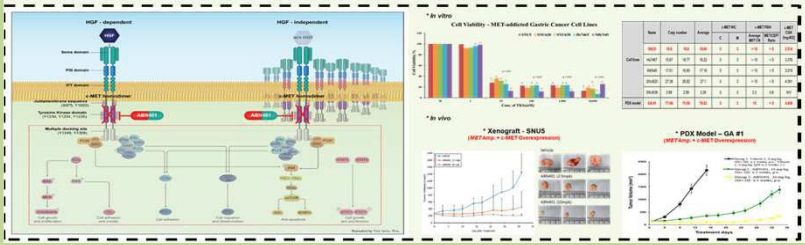


Applications of therapeutic antibodies



- ABN401, a novel and selective c-MET inhibitor, strongly inhibits c-MET auto-phosphorylation and also blocks the downstream signaling pathways such as AKT, ERK1/2, STAT3, RAS/RAF that is related to cell survival and proliferation, tumor growth and invasiveness.

c-MET inhibitor



- Anti-E6/E7 siRNA therapeutics, specifically knockdown the E6/E7 oncogene, which restores the tumorsuppressor signaling pathway such as TP53 and RB/E2F that is related to inhibition of cell proliferation, apoptosis, and anti-angiogenesis

Development of Anti-E6/E7 siRNA therapeutics