

ISSN 0513-4870 CN 11-2163/R

# 药学学报

第51卷

第2期

2016 Vol. 51 No. 2

Acta  
Pharmaceutica Sinica

综述

高会乐, 蒋新国  
肿瘤靶向递药新策略的研究  
进展

研究论文

邱凌翀, 李荣秀等  
一种靶向S100A8的五聚体重组多肽疫苗的构建及其抗肿瘤活性研究



中国药学会  
中国医学科学院药物研究所



# 药 学 学 报

第 51 卷 第 2 期 2016 年 2 月

## 综 述

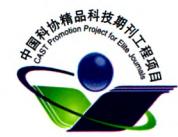
- 乙肝病毒 X 蛋白与肝癌的关系 ..... 蔡平平, 黄建炜, 苏成豪, 崔秀灵, 许瑞安 (165)  
慢性胰腺炎恶性转化的相关信号通路研究进展 ..... 许倩倩, 周仲实, 向 明 (174)  
药物诱导型肿瘤细胞的生物学特性及药物防治 ..... 李 猛, 吴春福, 张景媛, 杨静玉, 王立辉 (182)  
调控肿瘤干细胞干性的靶向作用与相关机制的研究进展 ..... 马赫遥, 何 苗, 魏敏杰 (189)  
肿瘤异质性与抗肿瘤靶向药物的耐药性 ..... 何琪杨 (197)  
和厚朴酚的抗肿瘤实验治疗及其分子作用靶点的研究进展 ..... 陈淑珍 (202)  
三氧化二砷和青蒿素抗肿瘤的机制研究进展 ..... 岳庆喜, 虞 红, 何 婷, 于海清 (208)  
酪氨酸-DNA 磷酸二酯酶: 潜在的肿瘤治疗靶点 ..... 胡 翊, 王浩文, 安林坤 (215)  
Cdk5—肿瘤新靶点及其抑制剂研究进展 ..... 苗龙星, 杨怡君, 王泽瑜, 李乾斌, 胡高云 (226)  
前列腺特异性膜抗原介导的抗肿瘤药物研究 ..... 吕青志, 杨金诚, 王永军 (234)  
基于 GST $\pi$  的抗肿瘤药物研究进展 ..... 邹 翩, 裴江鸿, 石 卫, 陈 莉 (241)  
我国研发的小分子酪氨酸激酶抑制剂的药物代谢研究 ..... 姜金方, 陈笑艳, 钟大放 (248)  
线粒体靶向药物输送抗肿瘤的研究进展 ..... 韩 曼, 李 畅, 郭望蔚, 刘惠娜, 梁文权, 高建青 (257)  
细胞穿膜肽在药物递送系统中的研究进展 ..... 范 博, 金明姬, 黄 伟, 王启明, 高钟毓 (264)  
肿瘤靶向递药新策略的研究进展 ..... 高会乐, 蒋新国 (272)  
聚合物修饰的金纳米粒在癌症治疗中的研究进展 ..... 崔 腾, 洪 琪, 丁 娅, 张 灿 (281)

## 研 究 论 文

- 以雄激素受体为靶标的抗前列腺癌药物筛选模型的建立和应用  
..... 何 阳, 刘阳光, 丁寄蔚, 李晓宇, 岑 山, 周金明 (287)  
一种靶向 S100A8 的五聚体重组多肽疫苗的构建及其抗肿瘤活性研究 ..... 邱凌翀, 卢悟广, 李荣秀 (294)  
新型聚酰胺-胺型大分子介导融合自杀基因促肿瘤细胞凋亡的研究  
..... 杨 苏, 张 悅, 张一然, 崔 冬, 刘冉录, 王燕铭 (302)  
消癌平注射液抗血管生成作用及其机制研究 ..... 王美鑑, 杜丹玉, 范 薇, 张 苍, 刘 阳, 樊佳红, 袁胜涛, 林森森 (309)  
不同链长唾液酸衍生物修饰脂质体的药效学研究 ..... 宋艳志, 黄振君, 骆 翔, 王梦静, 郑锦辉, 时 佳, 邓意辉 (316)

## 信 息

(233) 《药学学报》英文刊被 PMC 收录 (240) 正大天晴药业集团股份有限公司 (324) 扬子江药业集团创新发展纪实



## REVIEWS

- 165 Relationship between hepatitis B virus X protein and hepatic cellular cancer  
CAI PP, HUANG JW, SU CH, CUI XL, XU RA
- 174 Progress in the study of signal pathways for chronic inflammation-associated pancreatic carcinogenesis  
XU QQ, ZHOU ZS, XIANG M
- 182 Biological characteristics of drug induced tumor cells and its medicine prevention and treatment  
LI M, WU CF, ZHANG JY, YANG JY, WANG LH
- 189 Research progress on targeting effect and regulating mechanisms of the stemness of cancer stem cells  
MA HY, HE M, WEI MJ
- 197 Tumor heterogeneity and drug resistance of targeted antitumor agents  
HE QY
- 202 Research progress in anticancer effects and molecular targets of honokiol in experimental therapy  
CHEN SZ
- 208 Research progress on anti-cancer mechanisms of arsenic trioxide and artemisinin  
YUE QX, YU H, HE T, YU HQ
- 215 Tyrosyl-DNA phosphodiesterases: potential targets for cancer treatment  
HU Z, WANG HW, AN LK
- 226 Progress in the study of new cancer target Cdk5 and its inhibitors  
MIAO LX, YANG YJ, WANG ZY, LI QB, HU GY
- 234 Advances in prostate-specific membrane antigen-mediated antitumor drugs  
LÜ QZ, YANG JC, WANG YJ
- 241 Anticancer drugs targeting glutathione S-transferase  $\pi$   
ZOU P, PEI JH, SHI W, CHEN L

- 248 Metabolic research of domestically developed small molecule tyrosine kinase inhibitors  
JIANG JF, CHEN XY, ZHONG DF
- 257 Mitochondrial drug delivery for cancer therapy  
HAN M, LI C, GUO WW, LIU HN, LIANG WQ, GAO JQ
- 264 The development of cell-penetrating peptides in drug delivery system  
FAN B, JIN MJ, HUANG W, WANG QM, GAO ZG
- 272 The development of novel tumor targeting delivery strategy  
GAO HL, JIANG XG
- 281 Polymer-modified gold nanoparticles for cancer therapy  
CUI T, HONG J, DING Y, ZHANG C

## ORIGINAL ARTICLES

- 287 Establishment and application of a drug screening model for anti-prostate cancer agents targeting androgen receptor  
HE Y, LIU YG, DING JW, LI XY, CEN S, ZHOU JM
- 294 Construction and anti-tumor efficacy of a pentameric peptide vaccine that targets S100A8  
QIU LC, LU WG, LI RX
- 302 Apoptosis induced by transferring cytosine deaminase suicide gene into kinds of cancer cells with novel polyamidoamine dendrimers  
YANG S, ZHANG Y, ZHANG YR, CUI D, LIU RL, WANG YM
- 309 Effects and mechanisms of Xiao-Ai-Ping injection on angiogenesis  
WANG MJ, DU DY, FAN W, ZHANG C, LIU Y, FAN JH, YUAN ST, LIN SS
- 316 Pharmacodynamics of liposomes modified with different chain length of sialic acid derivatives  
SONG YZ, HUANG ZJ, LUO X, WANG MJ, ZHENG JH, SHI J, DENG YH

Abstracted / indexed in Chemical Abstracts (CA), Index Medicus (IM, Medline), SciFinder Scholar, Elsevier Scopus, Abstract Journal (AJ), Biological Abstracts (BA), Centre for Agriculture and Bioscience International (CABI), Current Bibliography on Science and Technology (CBST), Excerpta Medica (EM), Index Copernicus (IC), International Pharmaceutical Abstracts (IPA), Cambridge Scientific Abstracts (CSA), TOX CENTER, Ulrich's International Periodicals Directory, Chinese Pharmaceutical Abstracts (CPA), Abstracts of Chinese Medicine (ACME), etc.

ISSN 0513-4870  
9770513487162



## REVIEWS

- 165 Relationship between hepatitis B virus X protein and hepatic cellular cancer  
CAI PP, HUANG JW, SU CH, CUI XL, XU RA
- 174 Progress in the study of signal pathways for chronic inflammation-associated pancreatic carcinogenesis  
XU QQ, ZHOU ZS, XIANG M
- 182 Biological characteristics of drug induced tumor cells and its medicine prevention and treatment  
LI M, WU CF, ZHANG JY, YANG JY, WANG LH
- 189 Research progress on targeting effect and regulating mechanisms of the stemness of cancer stem cells  
MA HY, HE M, WEI MJ
- 197 Tumor heterogeneity and drug resistance of targeted antitumor agents  
HE QY
- 202 Research progress in anticancer effects and molecular targets of honokiol in experimental therapy  
CHEN SZ
- 208 Research progress on anti-cancer mechanisms of arsenic trioxide and artemisinin  
YUE QX, YU H, HE T, YU HQ
- 215 Tyrosyl-DNA phosphodiesterases: potential targets for cancer treatment  
HU Z, WANG HW, AN LK
- 226 Progress in the study of new cancer target Cdk5 and its inhibitors  
MIAO LX, YANG YJ, WANG ZY, LI QB, HU GY
- 234 Advances in prostate-specific membrane antigen-mediated antitumor drugs  
LÜ QZ, YANG JC, WANG YJ
- 241 Anticancer drugs targeting glutathione S-transferase  $\pi$   
ZOU P, PEI JH, SHI W, CHEN L

- 248 Metabolic research of domestically developed small molecule tyrosine kinase inhibitors  
JIANG JF, CHEN XY, ZHONG DF
- 257 Mitochondrial drug delivery for cancer therapy  
HAN M, LI C, GUO WW, LIU HN, LIANG WQ, GAO JQ
- 264 The development of cell-penetrating peptides in drug delivery system  
FAN B, JIN MJ, HUANG W, WANG QM, GAO ZG
- 272 The development of novel tumor targeting delivery strategy  
GAO HL, JIANG XG
- 281 Polymer-modified gold nanoparticles for cancer therapy  
CUI T, HONG J, DING Y, ZHANG C

## ORIGINAL ARTICLES

- 287 Establishment and application of a drug screening model for anti-prostate cancer agents targeting androgen receptor  
HE Y, LIU YG, DING JW, LI XY, CEN S, ZHOU JM
- 294 Construction and anti-tumor efficacy of a pentameric peptide vaccine that targets S100A8  
QIU LC, LU WG, LI RX
- 302 Apoptosis induced by transferring cytosine deaminase suicide gene into kinds of cancer cells with novel polyamidoamine dendrimers  
YANG S, ZHANG Y, ZHANG YR, CUI D, LIU RL, WANG YM
- 309 Effects and mechanisms of Xiao-Ai-Ping injection on angiogenesis  
WANG MJ, DU DY, FAN W, ZHANG C, LIU Y, FAN JH, YUAN ST, LIN SS
- 316 Pharmacodynamics of liposomes modified with different chain length of sialic acid derivatives  
SONG YZ, HUANG ZJ, LUO X, WANG MJ, ZHENG JH, SHI J, DENG YH

Abstracted / indexed in Chemical Abstracts (CA), Index Medicus (IM, Medline), SciFinder Scholar, Elsevier Scopus, Abstract Journal (AJ), Biological Abstracts (BA), Centre for Agriculture and Bioscience International (CABI), Current Bibliography on Science and Technology (CBST), Excerpta Medica (EM), Index Copernicus (IC), International Pharmaceutical Abstracts (IPA), Cambridge Scientific Abstracts (CSA), TOX CENTER, Ulrich's International Periodicals Directory, Chinese Pharmaceutical Abstracts (CPA), Abstracts of Chinese Medicine (ACME), etc.

ISSN 0513-4870  
9770513487162