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| **个人简介** | **86fa196b26e8b55af5e2f541f3e08f6**      **照片** |
| **姓名：段李平**  **性别: 男**  **出生年月：1979.10**  **学位/学历： 研究生/博士**  **职称：研究员**  **电子邮件： duanlp@nipd.chinacdc.cn**  **办公地址：上海市黄浦区瑞金二路207号** |
| **教育经历** | |
| 1997.09-2001.06，湖南科技大学化学化工学院，本科/学士，化学教育专业；  2001.09-2004.06，上海师范大学化学化工学院，硕士/研究生，物理化学专业，  2004.09-2009.03，华东理工大学药学院，博士/研究生，应用化学专业，  2014.07-2016.07，中国科学院微生物所，博士后。 | |
| **工作经历** | |
| 1. 2009.06-2018.06，中国疾病预防控制中心寄生虫病预防控制所，助理研究员、副研究员（2011.07起）、药物室副主任（2012.12起）   （期间：2015.11-2016.05，借调中国国家卫生健康委员会科教司）   1. 2018.07-2025.03，中国疾病预防控制中心寄生虫病预防控制所，研究员，药物室副主任，国家卫健委寄生虫病原与媒介生物学重点实验室PI   （期间：2019.03-2019.09，挂任中国疾病预防控制中心全球公共卫生处，处长助理）   1. 2015.03-至今，中国疾病预防控制中心寄生虫病预防控制所，研究员，药物室副主任 | |
| **社会/学术任职和活动** | |
| 2023年10月起任《中国寄生虫学与寄生虫病杂志》青年编委 | |
| **研究方向/主要研究内容** | |
| 抗热带病药物的设计和作用机制研究及媒介防控药物研发。代表性成果如下：  1、灭螺新药研发及转化  淡水螺是多种寄生虫病的中间宿主，利用灭螺药控制螺类可有效阻断疾病的传播。本团队通过结构改造和活性筛选，获得了一个高效、低毒、有开发前景的新型灭螺药——吡螺脲。吡螺脲在大田现场杀螺效果好，优于现有药物；杀螺谱广，对日本血吸虫中间宿主——湖北钉螺、广州管圆线虫中间宿主——福寿螺等均高效；对水生生物和哺乳动物安全。已完成工厂中试生产和3种剂型研发工作，在四省建立了示范区进行扩大化试用，该项成果已处于转让中。  2、抗包虫病新药研究  包虫病俗称第二癌症，是我国西部地区的高发疾病，藏族地区人群患病率高达6-15%，为世界之最。本团队基于“老药新用”的设计思想，发现了一个具有高效抗包虫活性的老药——咯萘啶。咯萘啶体外、体内杀虫效果好，均优于现有临床一线药物，给药方式灵活，口服、注射、经皮穿刺给药均可，毒副作用较小，药物性质和毒理学特征均已知，可作为一个高效、安全、可靠的抗包虫候选药物实现快速临床转化。（EBioMedicine 2020, 54, 102711.）  包虫病与恶性肿瘤有许多共同特征，因此利用抗细胞增殖药物来治疗包虫病是目前的研究趋势和热点。本团队将前期发现的一类咔唑氨基醇类抗细胞增殖化合物拓展到抗包虫领域，代表性化合物H1402和H1424具高效的体内、体外杀虫效果，显著优于现有临床药物，且毒副作用较小，机制研究结果表明该类化合物作用于包虫的拓扑异构酶I。（J Antimicrob Chemother 2017, 72, 3122-3130；专利申请号：201510115221.8） | |
| **科研/教学研究项目** | |
| 1. 国家自然科学基金面上项目，82072309，寄生虫病媒介螺类化学防控先导化合物的结构优化及杀螺作用机制探索，2021.01至2014.12，主持，55万  2. 比尔&梅琳达盖茨基金，INV-003422，基于中药源的疟疾防控新药研发，2020.07至2022.06，主持，30万美金  3. 国家自然科学基金NSFC-新疆联合基金，U1803282，抗包虫先导化合物结构优化及活性筛选平台的建立，2019.01至2022.12，参与，80万  4. 国家科技重大专项重大新药创制，2017ZX09101002，青蒿素及其衍生物创新药物研究，2017.01至2020.12，子课题任务包副组长，50万  5. 科技部国家重点研发计划项目，2017YFC1200600，重大/新发农业入侵生物风险评估及防控关键技术研究，2017.06至2020.12，参与，50万 | |
| **主要学术成果** | |
| **期刊论文**   1. Yuxun Lu; Weisi Wang; Le Yu; Yu-Qiang Zhao; Ying Chen; Yunhai Guo; Bing-Rong Luo; Yu-Hua Liu; Shizhu Li; **Liping Duan**; Ying Zhou ; Unveiling phosphofructokinase as the key target: an innovative strategy combining pull-down assays with optical imaging for snail-killing mechanism exploration, *Science China Chemistry*, 2025, 68   2） Lanyun Zhang; Weisi Wang; Yu-Qiang Zhao; Rui Huang; Yuxun Lu; Ying Chen; **Liping Duan**; Ying Zhou ; Mechanism study of the molluscicide candidate PBQ on Pomacea canaliculata using a viscosity-sensitive fluorescent probe, *Chinese Chemical Letters,* 2025, 36(1): 109798  3）Weisi Wang; Shuijin Huang; Fengquan Liu; Yang Sun; Xiangyun Wang; Junmin Yao; Shizhu Li; Yuhua Liu; Bingrong Luo; Xia Zhang; Hehua Hu; Zhuohui Deng; **Liping Duan** ; Control of the invasive agricultural pest Pomacea canaliculata with a novel molluscicide: Efficacy and safety to nontarget species, *Journal of Agricultural and Food Chemistry,* 2022, 70(4): 1079-1089  4） Changxiaoxi Liu; Suo Yang; Yimu Qiao; Yuqiang Zhao; Weisi Wang; Mingxuan Jia; Yanqi He; Ying Zhou; **Liping Duan** ; Effects of the molluscicide candidate PPU06 on alkaline phosphatase in the golden apple snails determined using a near-infrared fluorescent probe, *Chinese Chemical Letters*, 2021, 32(5): 1809-1813  5）Jun Lia, Weisi Wangb, Junmin Yao , Tian Wang, Shizhu Li , Wenjing Qi , Shuai Han , Yuan Ren, Zhisheng Dang , Xiumin Han , Gang Guo , Baoping Guo , Liqin Wang , **Liping Duan,** Wenbao Zhang, Old drug repurposing for neglected disease: Pyronaridine as a promising candidate for the treatment of *Echinococcus granulosus* infections. *EBioMedicine,* 2020, 54, 102711.  **专利**  1. 《具有杀螺活性的吡啶脲类化合物的用途》，公开号：201710941579.5，发明人：段李平，李石柱，王味思，张皓冰，曹淳力，姚俊敏，秦志强，陶奕。已申请国际专利：WO2019072046A1，DE112018004491T5，JP2020536933A  2.《咔唑氨基醇类化合物及其制备方法和抗寄生虫病的用途》，公开号：201510586459.9，发明人：段李平，李军，王味思，张文宝，魏玉芬，陶奕，刘欢元，薛剑，郭宝平，张皓冰，王慧。  3.《具有杀螺活性的水杨酰胺酯类化合物及其制备和用途》，专利号：201310676706.5，发明人：段李平，张皓冰，朱丹，陶奕，李石柱，秦志强，张仪。（已授权，获上海市优秀发明选拔赛优秀发明银奖） | |
| **荣誉及奖项** | |
| 2021年入选青海省'昆仑英才·高端创新创业人才'计划 | |

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| **Profile** | **86fa196b26e8b55af5e2f541f3e08f6** |
| **Name：liping duan**  **Gender：male**  **Date of birth：Oct. 16, 1979**  **Degree：Doctor**  **Title：Prof**  **Email：duanliping@nipd.chinacdc.cn**  **Address：207 Ruijin Er Road,  Shanghai, China** |
| **Education** | |
| Sep. 2004 - Mar. 2009 East China University of Science and Technology PhD  Sep. 2001- Jun. 2004 Shanghai Normal University Master  Sep. 1997 - Jun. 2001 Hunan University of Science and Technology Bachelor | |
| **Appointments** | |
| Jun. 2009 - Jun. 2018, Institute of Parasitic Diseases of Chinese Center for Disease Control and Prevention, assistant Professor, associate Professor ( July 2011), and deputy director of drug and pharmacy department ( December 2012)  Jul.2018 -Feb 2023, Deputy director of the drug and pharmacy department at the Institute of Parasitic Diseases of the Chinese Center for Disease Control and Prevention; PI at the Key Laboratory of Parasitic Pathogens and Vector Biology of the National Health Commission  March 2025 -Present, Professor; Deputy director of drug and pharmacy department at the Institute of Parasitic Diseases of Chinese Center for Disease Control and Prevention | |
| **Academic Participation and Activities** | |
| Young Members of Editorial Board of Chinese Journal of parasitology and parasitic diseases | |
| **Research Interest** | |
| Design and mechanism of action research of anti-tropical disease drugs and development of vector control drugs. The representative achievements are as follows:  1. Research and development of new snail killing drugs and their transformation  Freshwater snails are intermediate hosts of various parasitic diseases, and using molluscicides to control snails can effectively block the spread of diseases. Our team has obtained a highly efficient, low toxic, and promising new snail killing drug - Spiripratropium - through structural modification and activity screening. Pyracluron has a good snail killing effect in the field, which is superior to existing drugs; The snail killing spectrum is wide, and it is highly effective against intermediate hosts of Schistosoma japonicum, such as the Hubei snail, and the Guangzhou roundworm, such as the Fujian snail; Safe for aquatic organisms and mammals. We have completed the pilot production in the factory and the research and development of three dosage forms. Demonstration zones have been established in four provinces for expanded trials, and this achievement is currently being transferred.  2. Research on new drugs for anti-hydatid disease  Hydatidosis, commonly known as the second cancer, is a highly prevalent disease in western China, with a prevalence rate of 6-15% in the Tibetan population, the highest in the world. Based on the design concept of "using old drugs for new purposes", our team has discovered an old drug with high anti hydatid activity - pyronaridine. Phenazine has good insecticidal effects both in vitro and in vivo, surpassing existing first-line clinical drugs. Its administration method is flexible, including oral, injection, and percutaneous puncture administration, with minimal toxic side effects. Its drug properties and toxicological characteristics are known, making it an efficient, safe, and reliable candidate drug for rapid clinical translation. （EBioMedicine 2020, 54, 102711.）Hydatidosis shares many common characteristics with malignant tumors, therefore the use of anti proliferative drugs to treat echinococcosis is currently a research trend and hotspot. Our team has extended a class of carbazole amino alcohol anti cell proliferation compounds discovered earlier to the field of anti hydatid disease. Representative compounds H1402 and H1424 have highly efficient in vivo and in vitro insecticidal effects, significantly better than existing clinical drugs, and have fewer toxic side effects. The mechanism research results show that these compounds act on topoisomerase I of hydatid disease. (J Antimicrob Chemother 2017, 72, 3122-3130; Patent Application No. 201510115221.8) | |
| **Projects** | |
| 1. General Project of National Natural Science Foundation of China, 82072309, Structural Optimization of Lead Compounds for Chemical Control of Parasitic Disease Vector Snails and Exploration of Their Snail Killing Mechanisms, January 2021 to December 2014, Hosted, 550000 RMB  2. The Bill&Melinda Gates Foundation, INV-003422， Research and development of new drugs for malaria prevention and control based on traditional Chinese medicine sources, from July 2020 to June 2022, led by, with a budget of 300000 US dollars  3. National Natural Science Foundation of China NSFC Xinjiang Joint Fund, U1803282， Establishment of a structural optimization and activity screening platform for anti hydatid lead compounds, January 2019 to December 2022, participated, 800000RMB  4. National Science and Technology Major Special Project Major New Drug Creation, 2017ZX09101002, Innovative Drug Research on Artemisinin and Its Derivatives, January 2017 to December 2020, Deputy Leader of Sub project Task Package, 500000RMB  5. National Key R&D Program of the Ministry of Science and Technology, 2017YFC1200600, Research on Key Technologies for Risk Assessment and Prevention of Major/New Agricultural Invasive Organisms, June 2017 to December 2020, Participated, 500000 RMB | |
| **Publications** | |
| 1. Yuxun Lu; Weisi Wang; Le Yu; Yu-Qiang Zhao; Ying Chen; Yunhai Guo; Bing-Rong Luo; Yu-Hua Liu; Shizhu Li; **Liping Duan**; Ying Zhou ; Unveiling phosphofructokinase as the key target: an innovative strategy combining pull-down assays with optical imaging for snail-killing mechanism exploration, *Science China Chemistry*, 2025, 68   2） Lanyun Zhang; Weisi Wang; Yu-Qiang Zhao; Rui Huang; Yuxun Lu; Ying Chen; **Liping Duan**; Ying Zhou ; Mechanism study of the molluscicide candidate PBQ on Pomacea canaliculata using a viscosity-sensitive fluorescent probe, *Chinese Chemical Letters,* 2025, 36(1): 109798  3）Weisi Wang; Shuijin Huang; Fengquan Liu; Yang Sun; Xiangyun Wang; Junmin Yao; Shizhu Li; Yuhua Liu; Bingrong Luo; Xia Zhang; Hehua Hu; Zhuohui Deng; **Liping Duan** ; Control of the invasive agricultural pest Pomacea canaliculata with a novel molluscicide: Efficacy and safety to nontarget species, *Journal of Agricultural and Food Chemistry,* 2022, 70(4): 1079-1089  4） Changxiaoxi Liu; Suo Yang; Yimu Qiao; Yuqiang Zhao; Weisi Wang; Mingxuan Jia; Yanqi He; Ying Zhou; **Liping Duan** ; Effects of the molluscicide candidate PPU06 on alkaline phosphatase in the golden apple snails determined using a near-infrared fluorescent probe, *Chinese Chemical Letters*, 2021, 32(5): 1809-1813  5）Jun Lia, Weisi Wangb, Junmin Yao , Tian Wang, Shizhu Li , Wenjing Qi , Shuai Han , Yuan Ren, Zhisheng Dang , Xiumin Han , Gang Guo , Baoping Guo , Liqin Wang , **Liping Duan,** Wenbao Zhang, Old drug repurposing for neglected disease: Pyronaridine as a promising candidate for the treatment of *Echinococcus granulosus* infections. *EBioMedicine,* 2020, 54, 102711. | |
| **Patents** | |
| 1. "The use of pyridine urea compounds with snail killing activity", publication number: 201710941579.5, inventors: Duan Liping, Li Shizhu, Wang Weisi, Zhang Haobing, Cao Chunli, Yao Junmin, Qin Zhiqiang, Tao Yi. Applied for international patents: WO2019072046A1, DE11201800491T5, JP 220536933A  2. "Carbazole amino alcohol compounds and their preparation methods and applications for anti parasitic diseases", publication number: 201510586459.9, inventors: Duan Liping, Li Jun, Wang Weisi, Zhang Wenbao, Wei Yufen, Tao Yi, Liu Huanyuan, Xue Jian, Guo Baoping, Zhang Haobing, Wang Hui.  3. "Salicylamide esters with snail killing activity and their preparation and use", patent number: 201310676706.5, inventors: Duan Liping, Zhang Haobing, Zhu Dan, Tao Yi, Li Shizhu, Qin Zhiqiang, Zhang Yi. (Authorized, awarded the Silver Award for Excellent Invention in the Shanghai Excellent Invention Selection Competition) | |
| **Honors and Awards** | |
| High end Innovation and Entrepreneurship Talents' Program in Qinghai Province in 2021 | |