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## 科研动态

## 地球环境所

## “渭河盆地国际科学钻探计划”获ICDP顶额资助

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来源: 中国科学院地球环境研究所

【放大 缩小】

分享:  

由中国科学院地球环境研究所安芷生院士联合美国、瑞士、澳大利亚等9位科学家发起，渭河盆地国际科学钻探计划（WBDP, Weihe Basin Drilling Project）日前成功获得国际大陆科学钻探计划（ICDP）资助支持。WBDP是以面向国际地球系统科学前沿、配合国家“三深”战略为导向而计划的深部地球探测计划。ICDP专家组经过三轮评议，对于WBDP计划的科学理念设计、国际队伍组成、协调管理方案给与充分肯定。经理事会批准，顶额资助本计划向ICDP申请的150万美元经费配比。

深海沉积研究揭示出新生代全球气候最显著的变化是从“温室地球”到“冰室地球”，然而，在广袤的大陆环境中仍缺乏长时间尺度连续的陆相记录，制约了对新生代全球气候变化特征和动力学的深入理解。渭河盆地（107°-110°35' E, 34°-35°40' N）位于中国黄土高原与秦岭造山带之间，对东亚季风气候变化非常敏感。渭河盆地保存了超过7500米的巨厚细粒河湖相沉积，是世界一流的研究新生代亚洲水文气候变化的独特陆相记录，也是研究我国黄土高原生态屏障气候历史的良好场所。此外，渭河断陷盆地氦气、地热资源丰富，是氦气资源勘察和开发利用的重要区域。

渭河盆地国际科学钻探计划（WBDP）分两个阶段实施：第一阶段（WBDP Phase1）计划获取上部3000m沉积地层，重建晚中新世以来东亚多尺度水文气候变率及全球联系；第二阶段（WBDP Phase2）将获取盆地7500m完整的沉积记录，揭示新生代季风演化过程及其与青藏高原-秦岭隆升的耦合关系。基于渭河盆地高分辨率地球物理及钻孔资料，在盆地东部固市凹陷获取了500m的先导孔，证实了细粒湖相沉积物可揭示轨道-千年尺度水文气候的协同演化。本次获得的ICDP资助，将有助完成渭河盆地钻探计划第一阶段（WBDP Phase1）科学目标。

“国际大陆科学钻探计划”（ICDP, International Continental Scientific Drilling Program）由中国、美国及德国于1996年联合发起成立，该计划涵盖了地学领域不同研究方向，旨在促进世界范围内的大陆科学钻探与成果共享。地球环境所于2005年首次获得ICDP资助，完成了“青海湖国际环境钻探计划”，建成了东亚最大的大陆环境变化岩心库。今日再次获批“渭河盆地钻探计划”，相信渭河盆地科学钻探计划（WBDP Phase1）的成功实施，将进一步推动多尺度气候变化动力学的理解，为预估未来气候环境变化趋势提供宝贵素材，同时为黄河流域高质量发展提供科技支撑。

## INTERNATIONAL CONTINENTAL SCIENTIFIC DRILLING PROGRAM



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02-2022 Revised Full Proposal

Weihe Basin Drilling Project (Phase I)

Mio-Pleistocene Asian hydroclimate variability and dynamics

Dear Dr. Sun,

Thank you very much for submitting a revised Full Proposal entitled "Weihe Basin Drilling Project (Phase I) Mio-Pleistocene Asian hydroclimate variability and dynamics" to ICDP together with your colleagues.

The ICDP panels have meanwhile reviewed your proposal in detail and are of the opinion that your proposal has improved significantly and makes a clear and convincing case for a world-class site now. I am therefore pleased to inform you that up to 1.5 Mio. USD will be made available to you to conduct the project. The Executive Committee brought up the idea to seek linkages to results from other long paleoenvironmental archives in the area such as the ICDP [Lake El'gyeytgyn](#) project for added value.

Please contact Uli Harms (u.harms@icdp-online.org), the head of the OSG for further proceedings. Details of your rights such as utilization of funds for operations and related costs and duties such as publication of data and access to samples will be laid down in a Grant Agreement as funding contract that he will be working out with you.

Your grant will be reserved until June 2025. If your project could not be started by then you can apply informally for an extension explaining the delay. The panels will then decide about this issue. Please, keep in mind that ICDP cannot cover overhead costs as charged by some institutions.

I wish you and your Co-PI's every success with your challenging drilling program and look forward to seeing the operations start soon. The detailed assessment of the SAG is attached for your information and consideration.

With best regards,

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