

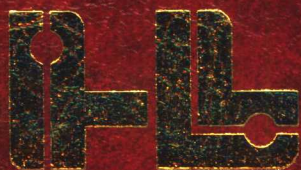
• 2002 •

何梁何利奖

HLHL PRIZE

何梁何利基金评选委员会 编

THE SELECTION BOARD OF HO LEUNG HO LEE FOUNDATION



中国科学技术出版社

• 2002 •

何梁何利奖

HLHL PRIZE

何梁何利基金评选委员会 编

THE SELECTION BOARD OF HO LEUNG HO LEE FOUNDATION



中国科学技术出版社

2003

图书在版编目(CIP)数据

2002 何梁何利奖/何梁何利基金评选委员会编. —北京: 中国科学技术出版社, 2003. 8

ISBN 7-5046-3590-1

I. 2... II. 何... III. 自然科学-科学家-列传-中国-2002 IV. K826.1

中国版本图书馆 CIP 数据核字(2003)第 063847 号

责任编辑 吕秀齐

封面设计 赵一东

责任校对 赵丽英

责任印制 安利平

中国科学技术出版社出版

北京市海淀区中关村南大街 16 号

邮政编码: 100081

电话: 62179148 62173865

新华书店北京发行所发行

各地新华书店经售

中国科学院印刷厂 印刷

开本: 787 毫米×1092 毫米 1/16

印张: 16.75

插页: 8

字数: 350 千字

2003 年 9 月第 1 版

2003 年 9 月第 1 次印刷

印数: 1—2800 册

定价: 40.00 元

内 容 提 要

本书是何梁何利基金出版物——《何梁何利奖》的第九集。书中概要介绍了 2002 年度何梁何利基金 57 位获奖人的生平经历和主要科技成就。为了便于海内外人士了解本奖背景，书中同时收入了反映何梁何利基金及其科技奖励情况的资料，作为附录刊出。

This is the ninth collection of the publications of Ho Leung Ho Lee Foundation——Ho Leung Ho Lee Prize. In this book, the biographical notes on the awardees of the year 2002 and their main scientific and technological achievements are accounted briefly. This collection includes appendices concerning Ho Leung Ho Lee Foundation and its scientific and technological prize in order to help the readers both in China and abroad to understand the background of this prize.

编 辑 委 员 会

主 编：李国章 程 序
顾 问：朱丽兰 赵沁平 段瑞春
编 委：(按姓氏笔画排列)
王 倬 朱道本 许靖华 师昌绪
孙 枢 张恭庆 陈佳洱 陈 竺
周炳琨 钱 易 高 文 梁栋材
曾庆存
执行编辑：杨咸武
编辑助理：邓大为 韩文胜 赵保京

EDITORIAL BOARD

Chief Editors: Arthur K.C.Li Cheng Xu
Advisers: Zhu Lilan Zhao Qiping Duan Ruichun
Board Directors: James Chuo Wang Zhu Daoben Kenneth J.Hsu
Shi Changxu Sun Shu Zhang Gongqing
Chen Jiaer Chen Zhu Zhou Bingkun
Qian Yi Gao Wen Liang Dongcai Zeng Qingcun
Executive Editor: Yang Xianwu
Assistant Editors: Deng Dawei Han Wensheng Zhao Baojing



人大常委会副委员长彭珏云、全国政协副主席朱光亚等国家领导人与 2002 年度何梁何利基金获奖人合影
Peng Peiyun, vice chairwoman of the National People's Congress, Zhu Guangya, vice chairman of the Chinese People's Political Consultative Conference (CPPCC) and other senior leaders have a photo taken with the winners of 2002 HLHL Prize.



2002 年 10 月 16 日，何梁何利基金颁奖大会（第九届）在北京钓鱼台国宾馆举行。人大常委会副委员长彭珏云、全国政协副主席朱光亚等在主席台上

On October 16, 2002, the Ninth Award Presentation Ceremony of HLHL Foundation is held at the Beijing Diaoyutai State Guesthouse. Peng Peiyun, vice chairwoman of the National People's Congress, Zhu Guangya, vice chairman of the Chinese People's Political Consultative Conference (CPPCC) are present at the ceremony.



朱镕基副总理、董建华行政长官为 1997 年度科学与技术成就奖获得者钱伟长先生、王忠诚先生颁奖

Vice-Premier Zhu Rongji, and Chief Executive Tung Chee-hwa award Mr. Qian Weichang and Mr. Wang Zhongcheng the '97 Prize for Scientific and Technological Achievements.



1997 年 9 月 23 日，何梁何利基金颁奖典礼首次在香港举行。图为当时的国务院副总理朱镕基、香港特别行政区行政长官董建华等在主席台上

Vice-Premier Zhu Rongji, Chief Executive Tung Chee-hwa and other senior officials attend the Award Ceremony of HLHL Foundation, the first one held in Hong Kong on September 23, 1997.



1998年10月22日，何梁何利基金颁奖大会在人民大会堂举行。李岚清、吴阶平、朱光亚等党和国家领导人出席大会

The '98 Award Ceremony of HLHL Foundation is held in the Great Hall of the People on Oct. 22, 1998. Vice-Premier Li Lanqing, Wu Jieping, Zhu Guangya, and other senior officials attend the ceremony.



1994年5月13日，何梁何利基金在北京举行成立庆典。图为宋健国务委员等在主席台上

The celebration of the establishment of HLHL Foundation in Beijing on May 13, 1994. State Councilor Song Jian and other senior leaders are on the platform.

HLHL 何梁何利基金
Ho Leung Ho Lee Foundation

"何梁何利星"命名証書頒授儀式



“何梁何利星”命名证书颁授仪式于2000年11月7日在香港举行。图为左1：何梁何利星发现者之一，紫金山天文台张家祥研究员；左2：紫金山天文台台长陆本魁教授；左3：基金信托委员会惠永正主席；左4：科技部朱丽兰部长；右4：捐款人利国伟博士；右3：捐款人何善衡先生代表何子焯先生；右2：捐款人梁铄琚先生代表王梁洁华女士；右1：捐款人何添博士代表何厚浹先生

The Promulgation Ceremony of “HLHL Star” Naming Certificate is Held in Hong Kong on November 7, 2000.

First from left: Professor Zhang Jiaxiang, staff of Nanjing Astronomical Observatory, one of the discoverers of “HLHL Star”. Second from left: Professor Lu Benkui, director of Nanjing Astronomical Observatory. Third from left: Mr. Hui Yongzheng, chairman of the Board of Trustees. Fourth from left: Ms Zhu Lilan, minister of Ministry of Science and Technology, People’s Republic of China. Fourth from right: Dr. Kau-Kui Leung, donor of the Foundation; Third from right: Mr. David T. C. Ho, representative of donor Dr. Ho Sin-hang. Second from right: Ms. Wong Leung Kit-Wah, representative of donor Dr. Leung Kau-Kui. First from right: Mr. Ho Hou-xi, representative of donor Dr. Ho.

彭珮云副委员长在何梁何利基金

2002 年度颁奖大会上的讲话

(2002 年 10 月 16 日)

各位来宾，同志们、朋友们：

今天，何梁何利基金第九届颁奖大会在北京隆重举行，这是我国科技界、教育界的一大盛事。我代表全国人大常委会、代表我国科技界、教育界，向荣获 2002 年度何梁何利基金科学与技术进步奖的 57 位科学家表示热烈的祝贺！同时，向热诚支持祖国科技事业发展的何梁何利基金的创立者及其家属子女，向基金的信托委员会全体成员、向评选委员会各位专家，向在香港和内地为基金成功运作而不辞辛劳的工作人员，表示衷心的感谢！

当今世界，人类正在经历一场全球性的科学技术革命。基础科学朝着交叉、复杂、综合和非线性方向前进，不断逼近极限和本原；高技术前沿孕育着重大突破，必将带动高新技术产业群体崛起；科技创新已成为推动世界经济和社会发展的主要动力，其中，基于基础研究和战略高技术研究的原始性创新，孕育着科学技术质的变化和发展，是国际经济竞争乃至综合国力竞争的制高点。为了充分发挥科学技术第一生产力巨大力量，加速社会主义现代化建设的进程，我国大力实施科教兴国战略，依靠科技进步和创新，全面提高国民经济的整体素质，努力实现技术的跨越发展，进而带动社会生产力的跨越式发展。在这项伟大的社会工程中，我国科技工作者以攀登科学技术高峰的勇气和毅力，在基础研究领域无所畏惧地探索科学真理，在高技术研究方面瞄准前沿不断取得新的突破，在技术创新和成果转化工作中奋力拼搏，推进具有自主知识产权产业的形成和发展，全国范围内涌现出一大批重大科技成果和优秀科技人才。今天获奖的 57 位科学家就是我国科技界的杰出代表。他们

当中，既有毕生为我国科学技术事业无私奉献、成就卓著的老一辈科学家，也有战斗在研究开发第一线的年富力强的中年科技骨干，还有在新时期科技进步与创新大潮中脱颖而出的青年学科带头人。他们的才华、智慧和原始创新业绩，为科学繁荣、技术进步和经济振兴做出了卓越贡献，应当受到全社会的赞扬和尊敬。

《中华人民共和国宪法》庄严宣布：“国家发展自然科学和社会科学事业，普及科学技术知识，奖励科学研究成果和技术发明创造。”奖励重大科技成果和发明创造，给予有突出贡献的科学家崇高荣誉，激励广大科学技术工作者勇攀科学高峰，既是法律赋予国家的神圣使命，也是一项义不容辞的社会责任，是与知识产权保护相辅相成的基本科技政策。基于这一方针，我国依据《科学技术进步法》和《国家科学技术奖励条例》设立了最高科学技术奖和自然科学奖、技术发明奖、科技进步奖、国际科技合作奖等国家奖励，同时鼓励境内外社会力量创办的各种科学技术奖励，共同推进我国科学技术事业的发展。

由香港爱国金融实业家何善衡先生、梁铨琚先生、何添先生、利国伟先生共同捐款设立的何梁何利基金，自1994年在香港成立以来，在中央政府的支持下已经成功地运作了九年。朱镕基总理在会见前来北京参加基金成立典礼的捐款人及代表时盛赞这是一项义举、善举。此后，在香港回归之年，他亲自出席了在香港举办的颁奖大会并发表了重要讲话，强调在中国的土地上，由中国人成立的基金，奖励中国的科学家，这是一件非常有意义的事情，赞扬四位捐款人“高谊可风，功在当代，泽被永远”。在这次会上首发的何梁何利基金成立八周年纪念光盘——《为了华夏的辉煌》记录了这个不平凡的历程。今年以著名化学家、科技管理专家朱丽兰教授为主任的新一届评选委员会已经诞生，承前启后，履行基金信托契约赋予的评选职责。衷心希望基金评选继续按照契约和章程规范管理、高效运行，继续严格执行公平、公开、公正的评选方针，保持并不断提升这项科技奖励的信誉度和权威性。我相信，在科技部、教育部和有关部门的支持下，在社会各界积极参与和协助下，何梁

何利基金将会越办越好。

同志们，21 世纪是一个充满机遇和挑战的纪元。世界的发展，文明的进步，向科学技术进步和创新提出了新的要求。科学技术是第一生产力，而且是先进生产力的集中体现和主要标志。让我们全面贯彻“三个代表”的要求，发扬开拓、创新、求实、奉献的精神，为完成科教兴国大业，为中华民族的振兴和世界文明进步做出更大的贡献。

**ADDRESS OF VICE CHAIRWOMAN OF THE
NATIONAL PEOPLE'S CONGRESS PENG PEIYUN
AT 2002 AWARD PRESENTATION CEREMONY OF
HO LEUNG HO LEE FOUNDATION**

(Oct. 16, 2002, Beijing)

Distinguished guests, comrades, and friends:

Today the Ninth Award Presentation Ceremony of HLHL Foundation is held in Beijing, this is a great event in the circle of science, technology and education of our country. On behalf of the Standing Committee of the National People's Congress, I would like to extend warm congratulations to the 57 scientists who win the Prize for Science and Technology Progress of HLHL Foundation of the year 2002! Also, I would like to express my sincere appreciation to the founders of Ho Leung Ho Lee Foundation, who zealously support the science & technology development of the motherland, and their families, to all members of Board of Trustees, to all experts of Selection Board of HLHL Foundation and the staff members who have been working tirelessly in Hong Kong and the mainland to ensure successful operation of the Foundation.

Nowadays, the human beings are experiencing a global science and technology revolution. The fundamental sciences are advancing toward crossing, complication, integration and non - linear direction, closing their utmost and essence. Major and important breakthroughs, which are being pregnant in the forefront of Hi - tech, are to a certainty will propel the elevation of new and high - tech industries. Scientific and technological innovations has become the primary driving force for world economic and social development. Original innovation based upon basic researches and strategic high - tech researches gestates qualitative changes of science and technology. It is the critical factor of competitions in both international economy and integrated national power. In order to give full play to the first productivity, i. e., science and technology, and to accelerate socialist modernization drive, China is implementing a strategy of "revitalizing country through science, technology and education", relying on science & technology advances and innovations, so as to enhance the overall quality of national economy. We're making endeavors to realize technological leapfrog development so as to promote leapfrog development of social productivity. In this massive social undertaking, Chinese scientists and technicians are exploring scientific truth valorously with courage and perseverance of climbing the summit of science & technology in the field of basic researches. And they are continuous-

ly achieving breakthroughs in the forefront of high – tech researches. They are working hard to transfer the research outcomes into practical production and to facilitate the formation and development of industries based on our own intellectual property rights. A large number of great science & technology achievements and excellent scientists have emerged nationwide. Today's 57 winners are outstanding representatives of Chinese science & technology community. Some of them are scientists who have contributed their life for the country's science and technology undertaking, some of them are excellent science and technology workers who are still engaged in the R&D activities, and some of them are the outstanding young scientists. They made outstanding contributions to the science, technology advancement and economic rejuvenation through their intelligence and extraordinary achievements, and thus deserve respect of the society.

The Constitution of the People's Republic of China stipulated that "The nation will develop the natural science and social science undertaking, popularize science and technology, award scientific research achievement and technology development, patents and inventions." It is not only the nation's divine mission bestowed by law, but also an unshirkable social responsibility to award scientists who made great contribution with lofty honor, and to stimulate the science and technology personnel to climb the summit of science and technology. It is also a basic policy of technology that supplement and complement the protection of intellectual property rights. On the basis of the guideline, according to the Law on Science and Technology Progress of the People's Republic of China and the National Science and Technology Awarding Ordinance, China set up Highest Science and Technology Award, Natural Science Award, Technology Invention Award, Science and Technology Progress Award, and International Science and Technology Cooperation Award. Meanwhile China encourages the science and technology awards established by non – government organizations, to make joint efforts to promote the development of our country's science and technology undertakings.

The HLHL Foundation, founded by patriotic financial industrialists Mr. S. H. Ho, Mr. Kau Kui Leung, Mr. Ho Tim and Wei Lun Foundation Limited of Dr. Quo – Wei Lee, has been operated successfully for nine years since its establishment at Hong Kong in 1994 with the support of central government. Premier Zhu Rongji praised that it was an almsdeed and righteous act when meeting donors and representatives who came to Beijing to attend the establishment ceremony. Afterwards, in the year 1997 when Hong Kong returned to the motherland, he attended the awarding ceremony in Hong Kong. In his important speech, he emphasized that it was significant and meaningful to set a foundation by the Chinese, for the Chinese scientists, on China soil, and commending the four donors for their merits and integrity, thinking that their acts benefit not only the current

generation but the future generations. Today the initially released commemorative discs "For the Glory of China" keep track of the extraordinary path ever taken. This year, a new committee led by Ms. Zhu Lilan, a famous chemist and expert in science & technology management, chairs the Selection Board of Foundation, will inherit the past and usher in the future, carry out the chapters of Trust Contract and the rule of Foundation Charter, operate and manage efficiently, continue to adhere to its principle of fairness, openness and impartiality, and maintain and elevate the credibility and authoritativeness of the scientific and technological award. It's my belief that with the support of the Ministry of Science and Technology, the Ministry of Education and other government sectors, with the active participation and assistance of various social sectors, the Foundation will get further development.

Comrades, the 21st century is one full of opportunities and challenges. The development of the world and the progress of civilization have put forward new requirements for scientific and technological progress and innovations. Science and technology is the foremost productivity as well as the focused reflection and primary mark of advanced productivity. Let us implement the requirements of "Three Represents" in a comprehensive manner, carry forward the spirit of "innovation, devotion, realism & sacrifice", and make more contribution to China's great undertaking of revitalizing the country through development of science, technology and education, and to the revitalization of the Chinese nation and the progress of human civilization.

序

何梁何利基金自 1994 年 3 月以慈善信托形式成立以来，转瞬间又踏入第十年。尽管在这段期间，基金信托委员会及评选委员会在人事方面都曾有若干更替，但在历任成员的无私合作下，基金均能有效地畅顺运作，并且有令人满意的发展。在社会上的知名度与影响力亦与日俱增，这是值得各捐款人欣慰的。

去年 10 月 16 日在北京钓鱼台国宾馆举行的基金第九届颁奖大会，共有 57 位专家学者获颁科学与技术进步奖，亦是基金自 1994 成立以来，连续第二届未有颁出科学与技术成就奖。这再一次证明了评选委员会坚持以“宁缺毋滥”、实事求是的原则，确保何梁何利基金奖的质素。

于 2002 年，基金在信托委员主席朱丽兰教授的领导下维持良好运作，各捐款人咸表感谢。在今年初，杨振宁教授已通知由 3 月底起不再担任基金信托委员及评选委员会副主任之职务。

杨振宁教授自基金于 1994 年成立起，即担任信托委员及评选委员会副主任之职，多年来克尽厥职，对基金的运作、发展，以至评奖工作等多方面贡献殊多，各捐款人谨对杨振宁教授致以由衷感谢。

另外，和广北先生亦于今于 5 月接替刘金宝博士出任基金信托委员会副主席及投资委员会主席，各捐款人对和广北先生的接任表示欢迎。

我们很高兴得悉杨振宁教授已同意转任基金顾问，此外，基金

亦很荣幸于去年邀请得接替姜恩柱先生出任中央人民政府驻香港特别行政区联络办公室主任的高祀仁先生为顾问，让基金得以受惠于两位的宝贵指导，各捐款人亦对原中联办主任姜恩柱先生于出任基金顾问期间的贡献致谢。

由于投资环境欠佳，去年基金的投资收入也因此受到影响。尤幸投资委员会各委员的尽心尽力，为基金会维持稳健的财务基础，各捐款人对此都深表感谢。

中国拥有绵长的历史，千百年来先贤们穷尽了智慧，在政治、经济、文化和科技方面累积而成的中华文明，更令我们引以为傲。在现今国际形势下，科技是一个国家赖以维持强盛和进步的要素之一。我国的科学技术工作者们殚精竭虑，为国家科技发展作出了贡献，实在值得表扬和敬佩。何梁何利基金对科技工作者的成就予以奖励。虽然只是锦上添花，但也表达了我们的敬意和谢忱。

何 添 何子焯（已故何善衡
先生之长子）

利国伟 王梁洁华（已故梁铨琚
博士之女儿）

2003 年 5 月于香港