Lighting the Way to A Cure
Spinal Cord Injury

We all think we are far away from tragedy, but spinal cord injury can strike our loved ones so easily - car accidents, sporting accidents, industrial accidents, or simply an unlucky fall!

Spinal cord injury (SCI) sufferers often face a prognosis of lifetime paralysis and serious neurological and functional deficits. Inevitably, this represents a dreadful burden on the family and a heavy cost for society.

Finding a cure for spinal cord injury will transform the lives of the victims, their families and benefit our society. In China, the incidence of SCI was about 5 new cases per million in 1995, but the incidence is believed to have risen to 60 new cases per million in 2005. Probably over a million people in China are disabled by spinal cord injury today.

SCI has long been considered an irreversible condition. Nevertheless, advances in science are changing this perception. There are more and more reports around the world of success in restoring function in spinally injured animals using new treatments. However, few of these new methods have gone on to clinical trials, which are the cornerstone of therapy development. With experienced physicians, dedicated scientists and large numbers of patients urging for new therapies, Hong Kong Spinal Cord Injury Fund (HKSCLFund) and China Spinal Cord Injury Network (ChinaSCINet) are devoted to bringing promising therapies to clinical study.

脊髓損傷

我們經常覺得災難和事故與自己非常遙遠，但一些常發意外如交通事故、運動損傷、工業意外，即使是不小心的跌倒，也能引致脊髓損傷而輕易地擊倒我們摯愛的人。

脊髓損傷患者經常要面對終生癱瘓及嚴重的神經及功能性障礙，這樣無可避免地給家庭及社會帶來沉重的負擔。

尋覓脊髓損傷治療可改變患者及他們家人的生活並造福社會。在 1995 年，中國每年脊髓損傷個案為每 100 萬人中 5 例新症，但到 2005 年已快速升至每 100 萬人中就有 60 例新症。估計現在中國患有脊髓損傷的人數已超過 100 萬。

長期以來，脊髓損傷一直被視為是不能治癒的疾病。但科學發展正改變這種觀念。現在越來越多的研究報導了新治療在動物實驗中成功地恢復了脊髓受損動物的功能。但這些研究只有很少部分能進入臨床試驗，驗證治療的安全性和效果。在經驗豐富的醫生、專注的科研人員、及期盼有效治療的患者支持下，香港脊髓損傷基金會與中國脊髓損傷協作組致力推動有前景的治療邁入臨床研究。
HKSCI Fund and ChinaSCINet were established in September 2004.

HKSCI Fund, formerly "the University of Hong Kong Spinal Cord Injury Fund", a certified charity (Hong Kong Registered Charity No.: 918370) has been established to fund ChinaSCINet clinical trials and other promising research for SCI. In addition, HKSCI Fund organizes and supports activities to promote and raise public awareness of SCI.

香港脊髓損傷基金會及中國脊髓損傷研究協作組在 2004 年 9 月成立。

香港脊髓損傷基金會，前為《香港大學脊髓損傷基金》，是香港註冊的慈善機構( 註冊號：918370)。基金會成立旨在支持中國脊髓損傷協作組的臨床試驗及有前景的脊髓損傷基礎研究。此外，基金會積極組織及參加各項活動提高公眾對脊髓損傷的認知。

ChinaSCINet, a registered non-profit organization, is a consortium of over 20 spinal cord injury centers in the leading hospitals of the Greater China Region. ChinaSCINet conducts prospective collaborative clinical trials of promising therapies for SCI and aims at accelerating the therapies from laboratory to clinic.

中國脊髓損傷研究協作組，是註冊的非牟利研究機構，由大中華地區二十多家主要醫院的脊髓損傷中心組成。協作組對有前景的治療和藥物進行前瞻性的臨床試驗，促進及加快新型治療從基礎研究進入臨床。

脊髓損傷關注日 - 「動感人・人感動」

ChinaSCINet Workshop (2007)
中國脊髓損傷研究協作組培訓班
Vision
To restore function to people with spinal cord injury.

遠景
恢復脊髓損傷患者的功能

Missions
- To realize the most effective and safest therapies to treat SCI;
- To bring the most promising SCI therapies from laboratory to clinic;
- To emphasize training and organization of participating physicians and institutions;
- To ensure that the quality of the trials is of an international standard

宗旨
- 實現最有效及安全的方法治療脊髓損傷
- 促進最有前景的脊髓損傷治療從實驗室推至臨床
- 培訓及組織參與試驗的醫生和機構
- 確保臨床試驗品質達到國際標準

SCI Open Day
脊髓損傷開放日 (2008/5/10)
ChinaSCI.Net Clinical Trials

From 2005 to 2013, ChinaSCI.Net launched 7 clinical trials on SCI in the Greater China Region. Four trials were successfully completed. The ongoing studies include the Phase II trials to determine the safety and feasibility of transplanting umbilical cord blood mononuclear cell (UCBMC) into people with chronic SCI. These are the first and only trials directed at treating chronic SCI. The results have been so promising that we are about to enter Phase III of the trials.

In its achievement to date ChinaSCI.Net has:

- **Accrued over 500 spinal cord injured cases in the trials;**
- **2005 - 2008. Completed the first and largest multi-center observational trials of SCI in Chinese.** Over 500 SCI patients in Mainland China, Hong Kong and Taiwan were recruited and followed for up to 1 year on the progress of the injury;
- **2007 - 2008. Discovered potential neuropathic pain treatment effect of lithium carbonate in SCI.** ChinaSCI.Net conducted Phase I and II clinical trials with the University of Hong Kong and the China Rehabilitation and Research Center respectively to test the safety and efficacy of the lithium carbonate tablet on the SCI. The studies were published in the journal Spinal Cord;
- **2010. Launched first trials to test the UCBMC transplant to treat 28 people with chronic SCI in Hong Kong and Kunming.** The studies have shown the UCBMC can be safely transplanted into the spinal cord of people. The magnetic resonance diffusion tensor imaging of treated subjects has shown that 2 out of 5 subjects have fibers growing across the injury sites and many subjects have recovered walking in a rolling device with manual assistance.

中國脊髓損傷研究協作組臨床試驗

2005 年至 2013 年間，協作組在大中華地區開展了七項脊髓損傷臨床試驗。其中四項已圓滿完成，協作組進行中的研究包括二期臨床試驗檢研究腎帶血細胞 (UCBMC) 移植治療慢性脊髓損傷的安全性和有效性。這是首次及唯一的針對慢性脊髓損傷治療的臨床試驗。初步研究結果令人鼓舞，協作組計劃展開第三期臨床試驗。

至今，協作組的臨床工作成果包括：

- **積累了 500 多例脊髓損傷臨床基礎資料；**
- **2005 - 2008 年，完成了首次及最大規模中國人脊髓損傷多中心臨床觀察研究。** 對國內、香港和臺灣的 500 例脊髓損傷患者進行為期 1 年的隨訪檢查，跟蹤病況的發展；
- **2007 - 2008 年，發現了碳酸鋰片治療神經疼痛的潛在療效。** 在香港大學和中國康復研究中心分別進行的 I 期和 II 期碳酸鋰片對脊髓損傷的安全和有效性研究中發現碳酸鋰片能減輕患者嚴重的神經痛。研究成果已發表在國際期刊“脊髓”；
- **2010，開展了全球首例腎帶血細胞移植臨床試驗，對 28 名在香港及昆明的慢性脊髓損傷進行治療研究。** 臨床試驗顯示腎帶血細胞能安全地移植入脊髓。部分細胞移植受試者的 MRI - DTI 成像分析顯示了損傷神經纖維的生長。在 5 例影像中，有 2 例顯示神經纖維再生並且生長跨越了損區域。此外大多數受試者在輔助器及有限度的協助下恢復了步行能力。
Over the years, ChinaSCINet has built a critical infrastructure to conduct clinical trials which:

- Is composed of leading experts in the field;
- Allows effective communication and cooperation among the centers;
- Trains the investigators of all centers to perform international SCI standard outcome assessments;
- Fosters the development of innovations and promising therapies into well-designed clinical protocols in an efficient manner;
- Implements and completes the clinical trials efficiently with rigorous ethics and scientific standards by adherence to the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) and local regulatory guidelines;
- Provides quality data and analysis to ensure the safety and efficacy of the treatments;
- Opens up opportunities for SCI patients to participate in promising new study therapies without charges.

多年來，協作組的架構使臨床試驗有效開展及進行：

- 由權威專家組建帶領；
- 促進臨床中心有效溝通及合作；
- 培訓研究者進行標準的國際脊髓損傷臨床評估設計及採用有效及正確的臨床方案開發新型及有前景的治療；
- 依據ICH及當地監管準則，嚴格地執行倫理及科學標準實施及完成臨床試驗；
- 提供符合品質標準的臨床資料及分析來驗證治療的安全性及有效性；
- 為脊髓損傷病人提供免費參加新治療試驗的機會。

Press Conference for Clinical Trial on Combination Therapy of Cord Blood Cell and Drugs for SCI (2011/4/20)

Workshop on Cell Transplantation Methods for Chronic SCI (2007/3/2-3)

Training Workshop on SCI Animal Model (2005/7/10-13)
Future Clinical Trial Plans

ChinaSCINet is planning Phase III multicenter trials to study umbilical cord blood cell therapy and lithium on 120 subjects with chronic "complete" spinal cord injury in China. If successful, this will be the first therapy that improves recovery of walking in people with severe chronic spinal cord injury.

Two major obstacles to spinal cord regeneration are axonal growth inhibitors and replacement of damaged neurons. Much research on neural stem cell is underway i.e. INS and MUSE derived immune compatible neural stem cells and inhibitor blockers like Cethrin and Nogo which are promising. ChinaSCINet will observe the development of these promising therapies and is committed to testing them in clinics.

未来臨床試驗計劃

協助組正在規劃第三期多中心胎兒血細胞移植及碳酸鈣臨床試驗，在中國計劃招募120名完全性的慢性脊髄損傷患者參加研究。如果獲得成功，這將是首例改善嚴重慢性脊髄損傷患者步行能力的治療。

脊髓再生需克服抑制障礙神經細胞的抑制劑及替換損傷的神經元這雙重障礙。伴隨著科研發展和進步，新型神經細胞和生物製品，如INS及MUSE細胞分化成具免疫相容性的神經細胞，以及抑制劑Cethrin和Nogo都顯示治療的前景。協作組將密切關注這些研究的進展，推動這些治療展開臨床研究。

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Support Us

Your support will bring hope to people with SCI by allowing HKSCIIFund to pursue a cure through continuously funding SCI clinical trials and research.

請支持我們

您的支持將使香港脊髓損傷基金會通過持續地支助脊髓損傷臨床試驗及研究，尋找治療，給患者帶來希望

Ambassadors 脊髓損傷基金大使

Dr. Christine Leung 梁子微博士
Vice-Chairman, Direction Association for the Handicapped
路向四肢傷殘人士協會副主席
"The HKSCIIFund tells me that cure for Spinal Cord Injury is no longer just a hope but will be areality. Cure is on the way for spinal injury sufferers. Oh yes, I am optimistic about the future."
「香港脊髓損傷基金告訴我，脊椎損傷治療正現曙光。我很有信心，這個希望會成為事實，在不久的將來，我們會再次站起來，是的，我，相信將來是充滿希望的!」

Mr. Stephen Chow 周星馳先生
Famous Actor & Director
香港著名演員兼導演
"It is a mission of bringing hope to millions of patients suffering from spinal cord injury."
「基金的成立，其使命是為脊髓損傷患者帶來新的機遇。」

Miss Sang Lan 桑蘭小姐
Chinese Gold Medal gymnast
中國全運會體操冠軍
Host of a Sport Programme "Sang Lan 2008"
奧運特別節目《桑蘭 2008》的主持人
"I am sure there will be a new drug for the treatment of spinal cord injury."
「我相信有一種新的方法可治療脊髓損傷。」
How to Support Us 捐助方式

Please return the completed form to The Hong Kong Spinal Cord Injury Fund by mail or by fax.
請填妥表格並寄回或傳真香港脊髓損傷基金。

Donation Methods 捐款方法

I / We wish to donate a total sum of HK$ __________
本人 / 機構捐款港幣 __________ 元

☐ Cheque enclosed herewith HK$ 附上支票
(Please make a crossed cheque payable to the "Hong Kong Spinal Cord Injury Fund Limited")
(劃賬支票抬頭請寫「香港脊髓損傷基金會有限公司」)

☐ Deposited to Hang Seng Bank account 已存入恒生銀行戶口: 024-773-515747-668
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☐ I would like to know more about the "Hong Kong Spinal Cord Injury Fund".
Please contact me at __________
本人希望知道更多有關「香港脊髓損傷基金會」的事宜，請聯絡本人 __________。

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