

## 科研支援 Scientific Support

體院採用生物、心理、社會學三者結合的跨學科模式來制訂支援策略，提供以科學為本、運動員為中心的精英培訓支援服務。運動科學、運動醫學及體適能部透過緊密的團隊合作，識別不同的訓練問題，然後與教練研究以數據為本的解決方案，並會進行持續監控、討論和以最新研究數據作基準分析，定期修訂各項科研支援服務的程序。

### 運動科學

體院的運動科學部負責一切有關運動生化、生物力學、營養、生理及心理的事宜，為獎學金運動員提供多方面的專業科研支援，包括科學測試、技術分析及改良、訓練及恢復監控、運動營養諮詢，以及心理控制的技巧訓練和諮詢。

In order to provide science-based, athlete-centred support for elite training, the HKSI uses the multi-disciplinary biopsychosocial model to formulate its support strategy. The Sports Science, Sports Medicine, and Strength & Conditioning Departments work as a team to identify the various training problems and concerns, and develop evidence-based solutions with the coaches. The support procedures are regularly updated through continuous monitoring, discussion and benchmarking against the latest research data.

### Sports Science

The HKSI Sports Science Department, which is responsible for all matters related to sports biochemistry, biomechanics, nutrition, physiology and psychology, provides a broad spectrum of expert scientific support for Scholarship Athletes. This includes scientific testing, technique evaluation and enhancement, training and recovery monitoring, sports nutrition consultation, and psychological training and consultation.



運動員可使用多元化的專業科研支援服務。  
*Athletes have access to a wide range of professional scientific support services.*



部門在年度內的其他主要工作包括：

- 提供合共421天的海外科研支援服務，讓教練得到更多臨場支援，全力協助運動員備戰大型運動會及國際比賽。
- 在兩個國際會議上合共發表了兩份研究報告，另有四份論文獲國際性的運動科研刊物刊登。
- 與香港多間大學/學院共同開展兩項研究計劃。
- 於本地大學舉行講座，並為準畢業生提供實習機會，協助培訓本地運動科研人才。
- 為本地運動員、教練及體育總會舉辦講座及研討會。

## 運動醫學

運動醫學部為獎學金運動員提供醫療支援，包括體格檢查、西醫門診、骨科門診、物理治療、中國手法治療、康復訓練、運動療法及運動按摩服務。

部門每年亦會舉辦多個講座及工作坊和製作刊物，教導運動員如何預防運動創傷，以及增進他們在應用運動醫學方面的知識。此外，又會定期向運動員提供肌肉骨骼檢定、運動姿勢及活動障礙評估，以及舉辦柔韌性、肩部及腰背穩定運動訓練班。年度內的主要工作包括：

- 於海外賽事期間，為教練及運動員提供合共1,229天的臨場支援服務，以及於本地集訓和比賽提供21天的臨場支援服務，以備戰大型運動會及國際賽事。
- 為本地運動員、教練及體育總會舉辦了五次研討會，以及為國際同業發表了兩次演講。



Other major tasks during this fiscal year included the following:

- Providing coaches with more on-site support in preparing athletes for Major Games and international competitions. To facilitate this, a total of 421 days of overseas scientific support services were provided.
- Presenting two research articles at two international conferences and publishing four papers in international, peer-reviewed, sports science journals.
- Collaborating on two joint research projects with universities/institutes in Hong Kong.
- Organising seminars at local universities, and providing internships to train and develop local sports science experts.
- Organising seminars and symposia for local athletes, coaches and NSAs.

## Sports Medicine

The Sports Medicine Department provides Scholarship Athletes with medical support services, including physical examinations, general clinic services, orthopaedic consultation, physiotherapy, Chinese manual therapy, rehabilitative training, therapeutic exercise, and sports massage.

Every year, the department also organises various seminars and workshops, and produces a number of publications to educate athletes on the prevention of sports-related injuries and increase their knowledge of practical sports medicine. It also provides athletes with regular musculo-skeletal evaluations, postural and movement impairment assessments for sports activities, and training sessions for enhanced flexibility, and shoulder and core stability. Major tasks in this fiscal year included the following:

- Providing 1,229 days of on-site support services to coaches and athletes for overseas sporting events, and 21 days for local training sessions and competitions, in preparation for participation in Major Games and international competitions.
- Organising five seminars for local athletes, coaches and NSAs, and providing two presentations for international professionals.

運動醫學是精英培訓系統的重要一環。  
*Sports medicine plays an important part in the elite training system.*



## 體適能訓練

體適能部與運動科學及運動醫學兩個部門緊密合作，制訂和執行以科學為基礎的體適能訓練計劃，透過改善運動員的爆發力、肌肉力量、速度和機動能力，提升他們的表現，充份發揮他們的潛能。部門利用科學測試，包括血乳酸、血液生化指標、一次最大負荷力量測試及其他指標性的臨場測試，設計和監察訓練內容，從而確保能更準確地決定有效的訓練負荷量及強度。有關計劃專為精英和青少年獎學金運動員而設，並根據個別運動項目的特定需求而制訂。

位於體院火炭總部的體能訓練中心總面積逾1萬1,200平方呎，分為五大區域，分別設置可鍛煉力量和爆發力的器械，還有氣壓式、機械式、自由力量訓練設備和心肺能力的器材。年度內，中心的平均每月使用次數為2,876人次。

體院於二零一一年十一月十九日至十二月十一日期間舉辦美國國家體能協會(NSCA)私人教練員和註冊體適能專家證書預備課程，並於二零一一年十二月十七日為兩項課程進行考試，吸引逾40名來自菲律賓、內地及本港的考生應考。透過這次合作計劃，體院不但提升在運動教練培訓的專業地位，還加強了與鄰近亞洲國家的交流。

體適能部於年度內亦為運動員及教練舉辦多個體適能講座及工作坊。這些活動均於體院的演講室及訓練場地舉行。



## Strength and Conditioning

The Strength & Conditioning Department works closely with the Sports Science and Sports Medicine Departments to develop and implement science-based strength and conditioning programmes designed to optimise athletes' performance by improving their power, strength, speed and mobility, thus enabling them to perform to their fullest potential. This is done by the use of scientific tests such as blood lactate tests, blood chemistry tests, repetition maximum strength tests, and other objective field tests to design and monitor training. This ensures a more precise determination of effective training load and intensity. The programmes are designed for both elite and junior Scholarship Athletes based on the specific requirements of individual sports.

The Fitness Training Centre in Fo Tan has a total floor area of over 11,200 square feet, arranged into five major zones: strength and power, air power, machine circuit, free weights and cardio. On average, the Centre was used 2,876 man-times per month throughout the year.

A preparatory course for Certified Personal Trainers, and Certified Strength and Conditioning Specialists of the National Strength and Conditioning Association (NSCA) was held at the HKSI from 19 November to 11 December 2011, followed by examinations on 17 December 2011. The course attracted over 40 candidates from the Philippines, the Mainland and Hong Kong. This collaborative programme enhanced the professional status of the HKSI in sports coach training and created exchange opportunities with nearby Asian countries.

Throughout the year, the Department also organised lectures and workshops for both athletes and coaches on topics relating to strength and conditioning. These took place both in the lecture room and at the training venues of the HKSI and its satellite-training centres.

體院為運動員度身訂造以科學為基礎的體適能訓練計劃，從而提升運動員的表現。  
*Science-based strength and conditioning programmes are designed to optimise athletes' performance.*



## 體育研究及資訊

體育研究及資訊組主要透過轄下的香港體育資訊中心（中心），為運動科學及運動醫學專家、教練、運動員、體育總會、學術機構及體育專業人士提供最新的體育資訊服務，配合他們的需要。

中心收藏了1萬4,550冊中英文書籍、2,500項視聽資料、506份期刊及1,219份由SPORTDiscus收錄的電子期刊，內容涵蓋運動科學及運動醫學、教練學、體育及康樂。此外，中心又提供網上資源，包括網上目錄、互聯網資源、研究報告及研究摘要。為幫助使用者充份利用這些資源，中心亦提供諮詢服務、館際互借服務、視聽器材設備及閱覽區。現時，中心提供兩個電子數據資料庫，分別是EBSCOhost的SPORTDiscus全文數據庫及萬方數據資料庫。SPORTDiscus全文數據庫備有索引，可查閱超過530份編入索引並可追溯至一九八五年的期刊，內容涵蓋各種有關運動的題材。萬方數據資料庫內則設有兩個數據庫可供檢索，分別是「中國學位論文全文數據庫」及「中國數字化期刊」，提供摘要及PDF格式的中文全文。

體育研究及資訊組亦為體院每年舉辦的國際科學研討會（詳情請參閱第54頁）提供秘書處服務，並為體院的科研及出版工作提供行政及技術支援。

## Research and Sports Information

The Research & Sports Information Section provides up-to-date sports information services through the Hong Kong Sports Information Centre (HKSIC) to meet the needs of sports science and sports medicine professionals, coaches, athletes, NSAs, academic institutions and physical education specialists.

The HKSIC houses 14,550 Chinese and English books, 2,500 audio-visual items, 506 printed journals and 1,219 e-journals from SPORTDiscus, covering sports science and sports medicine, coaching, physical education and recreation. A host of online resources are also available, including online catalogues, Internet resources, research reports and research highlights. To help users fully benefit from this breadth of information, the HKSIC provides reference services, Interlibrary Loan Services, audio-visual viewing facilities and reading areas. The HKSIC also provides two electronic databases, namely EBSCOhost's SPORTDiscus with Full Text and Wanfang Data. EBSCOhost's SPORTDiscus with Full Text provides indexed, full-text access to more than 530 indexed journals dating back to 1985 and covering all aspects of sports subjects. Wanfang Data comprises two databases entitled "China Academic Dissertations Full-Text Database" and "China Digitised Journals", both of which provide both abstracts and full-text Chinese articles in PDF format.

The Section also provides secretariat support for the HKSI's annual International Scientific Symposium (see page 54 for details), as well as administrative and technical support for the HKSI's scientific research and publications.



香港體育資訊中心備有各種體育資訊服務。

A broad spectrum of sports information services are available at the Hong Kong Sports Information Centre.