



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。精英訓練科技科設有六個中心，包括體能科學訓練中心、運動生物力學及科技中心、運動營養中心、運動心理中心、運動醫學中心及體育資訊中心。各中心的團隊緊密合作，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，並透過持續監控、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。精英訓練科技科每年亦為運動員、教練、體育總會、本港及海外專上學院及體育機構，以及合作夥伴舉辦不同主題的研討會、講座及工作坊，並製作刊物作教育用途，藉此促進體院與其他精英體育專才互相交流運動科學及醫學應用的經驗。

體能科學訓練中心

- 體能科學訓練服務

體能科學訓練中心與運動醫學中心及其他中心緊密合作，制訂和執行以科學為基礎的體適能訓練計劃，透過改善運動員的心血管系統、爆發力、肌肉力量、速度、靈敏性、耐力及機動能力，充分發揮他們的潛能。中心利用科學測試（包括實驗室及臨場）來量化和監控訓練，確保教練能更準確地判斷有效的負荷量度及強度周期訓練計劃，從而調整訓練計劃，達至最佳預期效果。

位於火炭的體能訓練中心總面積逾1萬1,000平方呎，劃分為五大區域，分別設置可鍛練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2,499人次。

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. There are six centres in the Elite Training Science & Technology Division: the Scientific Conditioning Centre, Sport Biomechanics & Technology Centre, Sport Nutrition & Monitoring Centre, Sport Psychology & Monitoring Centre, Sports Medicine Centre and Sports Information Centre. They 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. Each year, the Division organises various seminars, lectures and workshops for athletes and coaches, NSAs, local and overseas tertiary and sports institutes, and collaborative partners. It also produces a number of publications to educate and promote exchange between the HKSI and other elite sport professionals in applied sports science and medicine.

Scientific Conditioning Centre

- Scientific Conditioning Services

The Scientific Conditioning Centre works closely with the Sports Medicine Centre and other centres to develop and implement science-based strength and conditioning programmes designed to optimise athletes' performance by improving their cardiovascular system, power, strength, speed, agility, endurance and mobility to enable them to perform to their fullest potential. This is done through the use of scientific testing (both laboratory-based and field-based) to quantify and monitor training. This ensures a more precise determination of effective periodisation programmes on training load and intensity, which enables coaches to adapt training programmes to maximise their desired outcomes.

The Fitness Training Centre in Fo Tan has a total floor area of over 11,000 square feet, arranged in five major zones: strength and power, air power, machine circuit, free weights and cardio. On average, the Fitness Training Centre was used 2,499 times per month throughout the year.

美國國家體能協會私人教練員和註冊體適能專家證書考試分別於二零一三年九月二十八日及十二月十五日在體院舉行，共有59名考生應考，並由美國國家體能協會（上海）派員監考。考試由香港大學與香港運動醫學及科學學會合辦，為體適能教練提供考取國際認可證書的機會。

年度內體院又按照與上海體育職業學院簽署的合作備忘錄，安排該院14名學員於二零一三年七月十六日至十九日參加由體院體適能教練於體能訓練中心舉行的體能訓練交流實習計劃。這項合作計劃有助提升體院的專業地位，並為雙方就高水平的訓練方法提供交流平台。



The National Strength & Conditioning Association (NSCA) Certified Personal Trainer and Certified Strength and Conditioning Specialist examinations were held at the HKSI on 28 September and 15 December 2013. A total of 59 candidates sat for the examinations, which were proctored by officials from the NSCA-Shanghai. Jointly organised by the University of Hong Kong and the Hong Kong Association of Sports Medicine and Sports Science, this event provided physical fitness trainers with the opportunity to obtain internationally recognised certificates in their profession.

Following the signing of a memorandum of collaboration between the HKSI and the Shanghai Sports Institute, an exchange internship programme on fitness training for 14 students from the Shanghai Sports Institute was conducted at the HKSI Fitness Training Centre by Strength and Conditioning Coaches from 16 to 19 July 2013. This collaborative programme enhanced the professional status of the HKSI and created exchange opportunities on views and expertise on high-performance coaching practices.



體能科學訓練中心為運動員制訂和執行以科學為基礎的體適能訓練計劃，以充份發揮他們的潛能。

The Scientific Conditioning Centre develops and implements science-based strength and conditioning programmes to optimise athletes' performance.

• 運動選材服務

體能科學訓練中心不斷優化選材工作，將重點從優材的甄選伸延至優材的發展。年度內，除了進行常規的運動選材計劃外，亦加強了與體育總會和海外體育機構的合作。

過去一年，體院為來自賽艇、滑浪風帆、三項鐵人、武術和羽毛球的499名具潛質青少年運動員舉辦了運動選材計劃，當中81名運動員獲挑選在體院接受更高水平的訓練。體院亦協助體育總會進行優材評核工作，合辦為期三個月的訓練計劃。

• Talent Identification Service

The Scientific Conditioning Centre aims to improve talent identification by focusing on both talent development and talent identification. During the past year, in addition to the regular Talent Identification Programmes, we strengthened collaboration with NSAs and overseas sports institutes.

This year, Talent Identification Programmes were organised for 499 potential young athletes in rowing, windsurfing, triathlon, wushu and badminton, of which 81 were selected for further training at the HKSI. The HKSI also supported NSAs in talent verification, by working in partnership with them to conduct three-month training programmes.



體能科學訓練中心與體育總會和海外體育機構合作，進一步提升運動選材的工作。
The Scientific Conditioning Centre collaborated with NSAs and overseas sports institutes to strengthen the Talent Identification Programme.

為增加具潛質運動員的交流經驗，體院與日本體育委員會於二零一三年十二月二十二日至二十八日合辦為期七日的聯合運動優材發展營，參加者包括14位來自日本及16位香港的年輕羽毛球和劍擊運動員。活動不單讓具潛質運動員為過渡至青少年精英運動員作出最佳的準備，還提供平台讓兩地運動員參與跨文化和運動教育活動。

此外，為進一步提升「優化甄選」與「優才篩選」的工作，體院於二零一四年二月推出為期一年的運動選材及發展先導計劃，每星期為青少年精英運動員安排一節課堂，讓他們透過認識自我及在指定時段評核所訂下的目標，從而提升個人競爭力，並教授體能、運動營養及運動醫學等知識。

運動生物力學及科技中心

運動生物力學及科技中心負責測量和分析運動技術表現，並跟進和評估其他國家高水平運動員的技術和戰略，為體院運動員的訓練及比賽制定基準，從而向教練和運動員提供技術改善建議。中心亦會就建立訓練輔助反饋系統提供諮詢服務和建議，以提升運動員掌握和發展技術的進度。

年度內，中心於海外訓練和賽事期間，為教練及運動員提供合共465天的臨場支援服務，以備戰大型運動會及其他國際比賽。

To enrich the experience of potential athletes, a seven-day Joint Talent Development Camp was jointly held with the Japan Sports Council from 22 to 28 December 2013. Fourteen badminton and fencing athletes from Japan and 16 from Hong Kong participated. The camp also served as preparation for their transition from potential to junior elite athletes and included various cross-cultural and sports-education activities.

In order to further improve the “talent search” and “talent screen” service, a pilot Talent Identification and Development Programme was launched in February 2014, which provides weekly classes for junior elite athletes for a one-year period. The aim of the programme is to enhance their personal competencies as elite athletes through self understanding and to encourage them to set personal goals, which are evaluated at certain periods. The programme also provides knowledge of physical fitness, sports nutrition and sports medicine.

Sport Biomechanics & Technology Centre

The Sport Biomechanics & Technology Centre is responsible for providing measurement and analysis of sporting skills, as well as tracking and evaluating the technical and tactical patterns of other national high-performance athletes in order to set benchmarks for training and competitions. Feedback is then given to coaches and athletes on technique improvement. The Centre also provides consultation to coaches and athletes on setting up video feedback systems in training venues to accelerate the acquisition and development of skills.

In this fiscal year, the Centre provided 465 days of overseas on-field support services in preparation for Major Games and other international competitions.

此外，運動生物力學及科技中心亦與其他中心緊密合作，透過臨場錄像分析，找出個別項目運動員所要求的生理特質，為體適能教練提供具體數據，用以設計體能訓練計劃。年度內中心職員亦進行了一個研究項目，並提供實習機會，訓練和培育本港運動科研人才。

The Sport Biomechanics & Technology Centre works closely with the other centres to identify the physiological requirements of athletes in individual sports by means of on-field video analysis. The results are shared with strength and conditioning coaches for the preparation of fitness training plans. The Centre also conducted a research project during the year, and provided internships to train and develop local sports science experts.



運動生物力學及科技中心為運動員測量和分析運動技術，從而向教練和運動員提供技術改善建議。
The Sport Biomechanics & Technology Centre measures and analyses athletes' sporting skills, and gives feedback to coaches and athletes on technique improvement.

運動營養中心

運動營養中心由運動營養和生化測試專業人員組成，為運動員提供訓練監控、營養評估、諮詢、恢復策略及教育服務，並與飲食組緊密合作，為運動員設計餐單和提供營養分析。此外，團隊亦參與不同的研究，例如香港運動員的維他命D水平，以及哮喘和敏感問題的普及率等。年度內，中心為運動員提供了4,973次營養諮詢、17,832次生化測試及35天臨場支援。

Sport Nutrition & Monitoring Centre

The Sport Nutrition & Monitoring Centre includes professionals in the disciplines of nutrition and biochemistry testing. It is responsible for training, monitoring, nutritional assessment, consultation, recovery strategies, and education for athletes. In addition, the team collaborates closely with the Catering Section to devise menus with nutrient analysis for the athletes. The team is also involved in research, such as vitamin D levels of Hong Kong athletes, and the prevalence of asthma and allergies in Hong Kong elite athletes. During this fiscal year, the Centre provided 4,973 nutrition consultations, 17,832 biochemical tests for athletes and 35 days of on-field support.

運動心理中心

在整個以生物心理社會模式為基礎的跨學科團隊中，運動心理中心擔當重要的角色。中心從心理學角度協助教練和運動員提升訓練和比賽表現，向小組及個人提供的服務包括心理技巧訓練和評估、個人輔導、心理教育、臨場支援和應用研究等。臨場服務是中心的重要工作之一，以為運動員提供適時和直接的支援。年度內，中心提供了207天海外臨場服務及2,188節諮詢。此外，中心建立了一套以接受、啟發和投入為要點的正念訓練模式，更系統化地應用於運動員心理訓練之中。

Sport Psychology & Monitoring Centre

As part of the multi-disciplinary team employing the biopsychosocial model, the Sport Psychology & Monitoring Centre is responsible for assisting coaches and athletes in both training and competition from a psychological perspective. Services include psychological skills training, assessment, personal counselling, psycho-education, on-field support and applied research. The Centre provides both group and individual services. In order to deliver timely and direct support, on-field services are an important part of the Centre's work. During this fiscal year, the Centre provided 207 days of on-field support overseas, and 2,188 consultation sessions. The Mindfulness-Acceptance-Enlightenment-Commitment Model was developed to provide a more systematic perspective for sport psychology intervention at the HKSI.

運動醫學中心

運動醫學中心為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、中醫、中國手法治療、康復訓練、運動療法及運動按摩服務。

中心並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1,562天的臨場支援服務，以及於本地集訓和比賽提供44天的臨場支援服務，以備戰大型運動會及國際比賽。
- 為本地運動員、教練及體育總會舉辦了四次研討會。



Sports Medicine Centre

The Sports Medicine Centre provides athletes with medical support services, including physical examinations, general clinic services, orthopaedic consultations, physiotherapy, Chinese medicine, Chinese manual therapy, rehabilitative training, therapeutic exercise, and sports massage.

The Centre also provides athletes with regular musculo-skeletal evaluations, postural and movement impairment assessment for sports activities, and training sessions for enhanced flexibility, and shoulder and core stability. Major tasks this fiscal year included the following:

- Providing 1,562 days of on-site support services to coaches and athletes for overseas sporting events, and 44 days for local training sessions and competitions, in preparation for participation in Major Games and international competitions.
- Organising four seminars for local athletes, coaches and NSAs.

運動醫學中心為運動員提供全面的醫療支援服務。
The Sports Medicine Centre offers athletes a comprehensive range of medical support services.



體育資訊中心的圖書館遷至新建體院大樓後，為使用者提供更寬敞的環境，切合其訓練和研究所需。
With its relocation to the new HKSI Main Building, the Sports Information Centre's library boasts a spacious environment to cater for users' training and research needs.

體育資訊中心

體育資訊中心收集、整理和分析本地及海外最新的體育趨勢與發展，在策劃與推行精英培訓計劃的過程中提供支援。由中心管理的圖書館為本地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，配合訓練和研究需要。

Sports Information Centre

The Sports Information Centre collects, collates and analyses current trends and developments, both local and overseas, to support the planning and implementation of elite training programmes and initiatives. It manages a library to support the training and research needs of sports science and sports medicine professionals, coaches, athletes, NSAs, academic institutions and physical education specialists in Hong Kong.

圖書館收藏了超過1萬4,690冊中英文書籍、2,560項視聽資料、500份期刊及1,300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，圖書館又提供網上資源，包括網上目錄、研究報告、研究摘要及其他互聯網資源。為幫助使用者充份利用這些資源，圖書館亦提供諮詢服務、館際互借服務、視聽器材設備及閱覽區。現時，圖書館提供兩個電子數據資料庫，分別是EBSCOhost的SPORTDiscus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。

體育資訊中心亦為精英訓練科技科負責的國際關係及特別項目提供重點支援，如統籌和安排各項探訪及交流活動、籌備體院每年一度的國際科學研討會，以及為體院的科研及出版工作提供行政及技術支援等。

The library houses over 14,690 Chinese and English books, 2,560 audio-visual items, 500 printed journals and 1,300 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, research reports, research highlights and other Internet resources. To help users fully benefit from this breadth of information, the library provides reference services, Interlibrary Loan Services, audio-visual viewing facilities and reading areas. The library provides two electronic databases: EBSCOhost's SPORTDiscus with Full Text, and Wanfang Data. SPORTDiscus provides indexed, full-text access to more than 530 journals dating back to 1985, covering all aspects of sports. Wanfang Data comprises two databases, the "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 Sports Information Centre also plays a key role in the coordination and management of a broad range of international relations initiatives and special projects within the Elite Training Science & Technology Division, such as visits and exchanges, organising the HKSI's annual International Scientific Symposium, and providing administrative and technical support for the HKSI's scientific research and publications.

運動員發展 Athlete Development

個人/社交發展計劃

運動員事務部因應體院獎學金運動員的特別需要，制訂不同的支援計劃，照顧他們在社會、個人及職業技能等重要範疇的發展需要，讓這些具天賦的運動員全情投入精英訓練生活。

在二零一三/一四年度，運動員事務部為50名運動員提供學業輔導服務，協助他們報讀本地大學，當中41名運動員獲得取錄。

年度內，部門亦為789名獎學金運動員舉辦了36次工作坊，提供不同範疇的學習機會，包括形象指導、時間管理、團隊建立技巧、確立目標、公眾演講，以及溝通及傳媒處理技巧等。此外，又為71名運動員安排不同類型的體驗活動，包括皮革製作、夏威夷小結他演奏、非洲鼓賞析和音樂剪輯等，讓他們得到多元化的學習經驗，擴闊眼界。

Personal/Social Development Programmes

The Athlete Affairs Department supports the special needs of HKSI's gifted Scholarship Athletes through a number of programmes designed to enable them to fully dedicate themselves to an elite training lifestyle, without neglecting important social, personal and vocational developmental needs.

In the 2013/14 fiscal year, 50 athletes were provided with educational support for admission to local universities, of which 41 were offered a place.

A total of 36 workshops were organised during the year for 789 Scholarship Athletes, offering them with a variety of learning opportunities in areas such as image building, time management, team building, goal setting, public speaking, and communication and media-handling skills. A variety of experiential activities were organised for 71 athletes, including leather making, ukulele playing, djembe appreciation and music editing, to offer them different learning opportunities.