香港中文大學－新界東醫院聯網臨床研究統籌處通訊
Joint CUHK-NTEC CRMO Newsletter
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總監的話
Director's Message

臨床研究統籌處一直以支援我們的研究團隊，從計劃到落實進行臨床研究項目為目標。我們明白同事們正面對倫理審批、財務壓力、質量保證及培訓不足等挑戰；作為你們的合作伙伴，CRMO現正推出幾項收費服務，幫助大家能更有效地進行臨床研究。

為減輕因申請倫理審批而帶來的行政負擔，CRMO為有需要的的同事，提供從申請倫理審批及審批後活動（包括修訂申請、年度進度報告和非預期嚴重不良反應SUSAR的雙周提交服務）的一站式審批申請服務。

一份全面的預算計劃被認為是達致成功進行臨床研究的其中一個重要因素；大家都明白每一個研究項目均有其獨特性，不可能存在一個「萬用」的成本計算公式。透過我們的諮詢服務，在預算時需考慮一些關鍵因素如人力費用、程序成本、行政費用和一些被忽略的費用等。對於公司贊助的臨床研究，我們同樣提供諮詢，促進你與贊助者/ 合同研究組織（CRO）協商預算方案。此外，CRMO還提供了一系列的諮詢服務包括：撰寫臨床試驗計劃書、設計病歷報告表和知情同意書。

當你進行公司贊助的臨床研究時，研究贊助者、CRO或監管機構（如國家食品藥品監督管理總局）（CFDA）可能需要進行內部視察；我們富於經驗的質量保證員會依據CRMO-SOP-022「品質保證審查」的程序，提供獨立的內部視察。

另外，新同事因缺乏指導和專門知識，導致在日常處理臨床試驗時感到挫敗。有見及此， CRMO 為有志追求實踐良好臨床試驗的同事，定期為他們提供個人化的培訓；透過三小時的入門課程，具認可資格且富經驗的培訓導師講解藥物臨床試驗質量管理規範（GCP）、臨床研究統籌處—標準操作程序（CRMO-SOP）的基本原則和一般臨床試驗的工作流程和慣常做法，完成訓練後將給予證書。

以上服務是按標準收費，請隨時與我們聯絡查詢。另外，我們很樂意擴展服務組合以滿足你們的需求，歡迎聯絡我們提出意見。

臨床研究統籌處執行總監
曾寶怡

Clinical Research Management Office (CRMO) aims to support our clinical research units from planning to realization of clinical trial project. We understand our colleagues are being impacted with challenges including but not limited to the application of ethical approval, financial pressures, quality assurance burden and insufficient training. Being you trial partner, CRMO is rolling out several chargeable services in aim to facilitate you to conduct trials efficiently.

To relieve the administrative burden in the submission of CREC approval, CRMO provides one-stop application services for those who need support in the initial application of CREC approval and the post-approval activities (include amendment application, annual progress report and biweekly submission services of SUSAR).

A comprehensive budget planning is believed as one of the key successful factors for conducting a trial. We understand that there is no "one size fits all" cost formula. Each project has its own unique features. Through our consultation service, we would bring some key elements such as the personnel cost, procedural cost, administrative cost and some hidden cost that may be included during budget planning. For company-sponsored studies, we also provide consultation to facilitate you to liaise with Sponsor/ CRO on budgeting. In addition, CRMO also provides a range of consultation such as protocol writing, Case Report Form (CRF) design and Informed Consent Form (ICF) design.

When you are conducting a company-sponsored study, you may be required to conduct an internal inspection by Study Sponsor, CRO, or regulatory authorities (e.g. China Food and Drug Administration (CFDA). Our experienced quality assurance person can provide independent internal inspection in accordance with the procedures outlined in CRMO-SOP-022 "Quality Assurance Reviews".

Lack of guidance and know-how causes frustration on the new joiner in handling clinical trial. In view of this, CRMO provides regular research personnel training for those wishing to pursue good trial practice. The 3-hours introductory course goes through basic principle of GCP, CRMO SOPs and general work flow of clinical trial practice. The course is conducted by experience trainers with recognized qualification. A certificate will be issued after training.

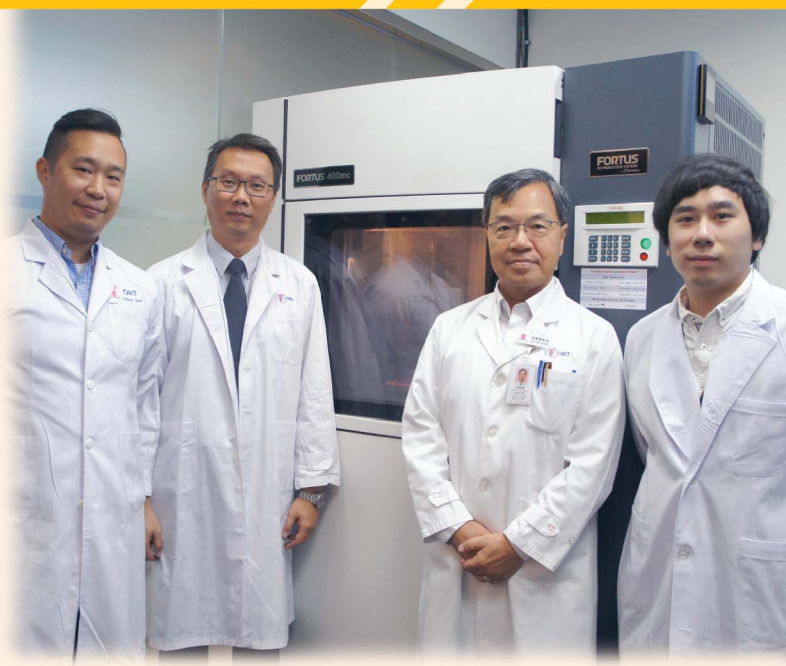
Each service listed above is with a standard cost. Please feel free to contact us for enquiry. To further extend our service portfolio that match your need, you are always welcomed to provide us with comments.

Louisa Tsang
Managing Director
Clinical Research Management Office (CRMO)

Fall & Fracture Prevention Research Unit

3D打印技術在醫療保健的應用發展迅速，有望徹底改變臨床醫學的實踐。早於2011年初，中文大學矯形外科及創傷學系梁國穗教授、張穎愷教授、周冠豪教授和徐振星先生（電腦輔助術前規劃及外科模具製作CASM工程師）的研究團隊，已開始著手研究在臨床實踐中應用3D打印的可行性。這隊由醫生和工程師的協同組合，是本港開發和臨床應用3D打印於骨科手術的先驅。

Application of 3D printing in healthcare are expected to revolutionize the medical practices and are developing rapidly. Prof. Kwok-sui Leung, Prof. Louis Wing-hoi Cheung, Prof. Simon Kwoon-Ho Chow and Mr. Elvis Chun-Sing Chui (CASM engineer) of Department of Orthopaedics & Traumatology of CUHK have started to investigate the feasibility of applying 3D printing in clinical practice since early 2011. The synergistic combination of doctors and engineers positions this research team as the pioneer in the development and clinical application of 3D printing in orthopaedic surgery in Hong Kong.



周冠豪教授 (左 1)，張穎愷教授 (左 2)，梁國穗教授 (右 2)，徐振星先生 (右 1)
Prof. Simon Chow (Left 1), Prof. Louis Cheung (Left 2),
Prof. Kwok-sui Leung (Right 2), Mr. Elvis Chui (Right 1)

請介紹一下你們的3D打印項目？透過3D打印的幫助，什麼是醫生現在能做到而過往做不到的事？
Can you introduce your 3D printing projects to us? What does 3D printing allow doctors to do that they couldn't do before?

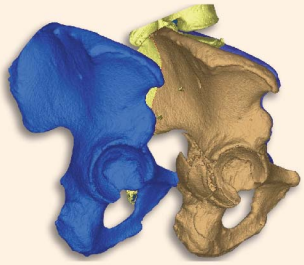
傳統上，外科醫生在手術前，會透過磁力共振 MRI 或電腦掃描CT在平板螢幕所顯示的二維2D影像，設計和模擬手術。再者，個體之間解剖學的差異往往導致手術的不確定和複雜性。自2000年初，矯形外科及創傷學系引進電腦輔助導航系統，並將X光和電腦掃描的二維影像重組成三維影像，應用於術前計劃。

為了進一步提升手術的精密度和準確度，進行術前的規劃和可行性試驗是有必要的，而3D打印功能就能滿足這些需求。我們已開發的3D打印技術，打印出具指引性和有型實體的骨模具作術前規劃之用。沒有實體的3D打印模具，醫生只能在手術期間透過「反覆試驗」來確定植入物的形狀；在3D打印模具的協助下，外科醫生可以預先調較植入物形狀，而在手術期間直接將「合身的」植入物放在已計劃的部位上。3D打印模具尤其適用於複雜的手術，例如對解剖學的理解上至為重要的盆骨和髖臼骨折的固定手術。

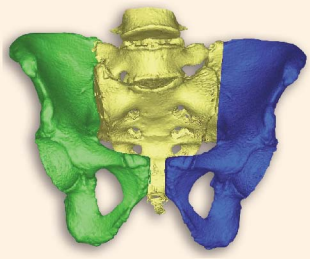
Traditionally, surgeon is required to plan and simulate surgery relying solely on MRI or CT scans which are viewed in two-dimensional (2D) on a flat screen. Moreover, anatomical variations between individuals often prompt the uncertainties and complexities to the operation. Since early 2000, the Department of O&T has introduced computer-assisted navigation system in Hong Kong and started to re-construct 3D images using the 2D images of X-ray and CT scan for pre-operation planning.

To further enhance the precision and accuracy in surgery, preoperative planning and feasibility trials are essential, the availability of 3D printing technology facilitates such demands. We have developed 3D printed model to produce an instructive and tangible surgical site bone model for pre-operative planning. Without tangible 3D printed model, doctors could only determine the shape of the implants with several "trial-and-error" intraoperatively. With the help of 3D printed model, surgeon can pre-bend the implant beforehand and place the "custom-fit" implant directly on the planned site during the surgery. 3D printed model is especially useful in complex surgery, e.g., pelvic and acetabular fracture fixation where appreciation of the anatomy is critical.

右盆骨骨折
Fractured right pelvis



透過左盆骨鏡像，經影像重組製作出完好無缺的右盆骨影像，並根據它製造3D 打印模具
Mirror image of the left pelvis facilitated the image reconstruction of the unscathed right pelvis. A 3D printed model can be fabricated according to the 3D image



在手術前，外科醫生可預先調較固定右盆骨骨折的植入物的形狀
Surgeon can pre-bend the implant for fixing the fractured right pelvis before the surgery

3D 打印的手術導引器能協助適當地切除腫瘤，儘量減低發病機會，亦同時保留足夠的正常組織。
3D printed model guides resection to have as adequate as enough margin of normal tissue with minimal morbidity.

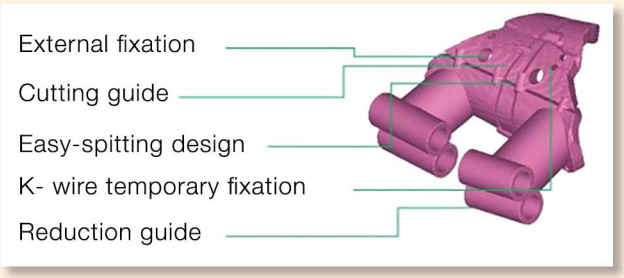
3D 打印技術可度身訂造手術中個人化的手術器。
3D printing technique can produce made-to-order intraoperative Personalized surgical Instrument (PSI).

3D打印技術在骨腫瘤手術同樣具有不可替代的價值和潛力；每個骨腫瘤在臨床的表現和結構都是獨具一格，因此有需要獨特的手術方案處理。3D打印的手術導引器能協助適當地切除腫瘤，亦同時保留足夠的正常組織。如果沒有3D打印模具和導引器的精準指導，外科醫生將不得不犧牲一些未被侵入的正常組織，儘量減低發病機會。這些例子都説明了3D打印在術前規劃所提供的幫助。

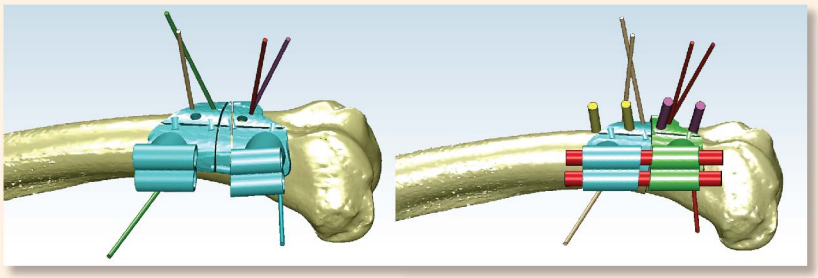
此外，3D打印技術可根據電腦輔助，設計出精準的術前規劃，度身訂造手術中個人化的器械，指導外科醫生進行截骨和復位手術。個人化的手術器械節省了手術時間，因而減低手術部位感染、失血、誤置螺釘等風險，促進病人的康復。除了製作塑膠的3D打印導向器外，我們亦與其他公司和機構緊密合作，製作金屬的3D打印導引器，以承受截骨手術時所產生的高溫。

The 3D printing technology also possesses an irreplaceable value and potential in bone tumor surgery. The clinical presentation and structure of each tumor is unique, and hence unique surgical solution is needed. When combined with computer-aided surgical planning, 3D printed surgical guides allow the resection to be adequate but at the same time leaving enough margin of normal tissue with minimal morbidity. Without the precise guidance from 3D printed model and surgical guide, the surgeon would have to sacrifice some uninvaded area. These are the examples of what 3D printing can provide in pre-operative planning.

In addition, 3D printing technique can produce made-to-order intraoperative personalized instrument that guide the surgeon to perform osteotomy and reduction (realignment) procedures according to the computer aided preoperative plan accurately. Personalized surgical instruments (PSI) save operation time and hence minimize the risk of surgical site infection, blood loss, screw malposition and facilities recovery. Apart from fabricating 3D printed plastic guide, we also collaborate closely with the companies and institutes to produce 3D printed metal guides which can endure high temperature generated during osteotomy.



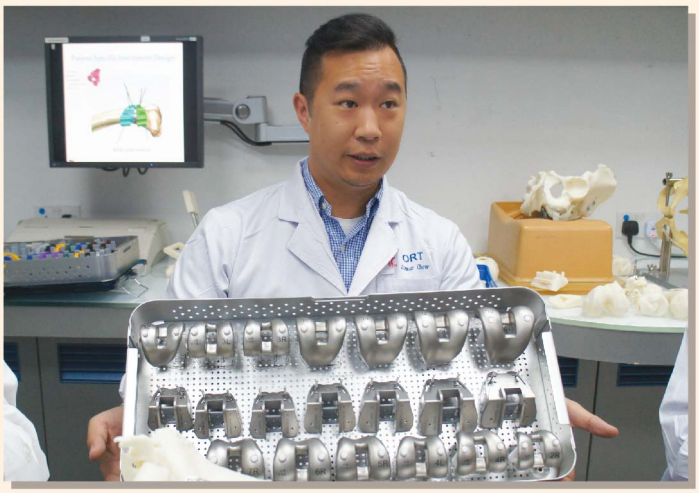
PSI 用於矯正截骨手術
PSI for corrective osteotomy



PSI 引導固定釘的位置將夾具下錨，精確地指導復位手術
PSI positioning guides the alignment pins to anchor the jig for realignment and provides guidance for accurate reduction.

3D打印之所以比現行的治療具優勢是基於它的個人化；它不僅為病患者提供特定的術前模版，還有個人化的手術器械，及最終能提供度身訂造的植入假體。3D打印製造出傳統製造技術無法實現的精密結構。目前，人工關節置換手術是使用固定尺寸的假體，情況類似鞋的尺碼，未能配合病患者個體之間的解剖差異。假如病人的關節超出置換假體的「尺碼」，病人安裝假體後可能感到不適、又或需要削除部份的骨骼以配合現成的人工關節。而個人化的人工關節會為病人帶來舒適的步履及縮短術後痊癒時間。我們樂觀預見，在不久的將來，每一個病人能有適合自己的「鞋子」。

3D printing gains an edge over the current approach for its personalization. It provides not only patient-specific pre-operative template, but also personalized surgical instrument and ultimately offers customized implantable prosthesis. 3D printing offers precise micro-architecture that cannot be achieved by traditional manufacturing technique. Currently, arthroplasty uses prostheses with fixed sizes that cannot fit to the large variation in patients' anatomy. This is very much akin to sizing for shoes. If patient's size lies beyond those "norms", patient may suffer from discomfort or certain amount of his bone has to be removed in order to fit the off-the-shelf model. Personalized artificial joint would allow patient to have a more comfortable gait and shorten surgical recovery time. We are optimistic that each patient has his own "shoes" in the near future.



現在只有現成的人造關節可用於關節置換手術
Only off-the-shelf artificial joint is available now for arthroplasty.

與其他專科比較，3D打印在骨科的應用上有什麼優勢？
In comparing with other specialties, what are the advantage of applying 3D printing in Orthopaedics?

3D打印需要精確的影像如電腦掃描CT和磁力共振MRI；CT是骨骼造影的首選，它的解析度高，所產生軸向薄切面影像的厚度小於1mm。與CT相比，MRI的切面厚度與CT相若，若病人在長時間掃瞄時略為移動，也會嚴重影響影像質素。CT對骨骼的卓越解析度，能幫助打印出高解析度的3D複製品。在精緻的3D打印模具協助下，外科醫生可以更準確預測手術的挑戰，並考慮諸如血管和神經位置等因素，制訂更好的計劃和治療效果。與軟組織比較，基於骨骼的硬度，3D打印的模具和骨骼的CT影像相若，所以3D打印的製成品可以完全反映真實的骨骼狀況，這是骨科在應用3D打印技術上的優勢。

3D printing requires precise image acquisition such as Computer tomography (CT) and Magnetic Resonance Imaging (MRI). CT is the imaging modality of choice for bone; it is high in resolution and produces thin-section axial image with slice thickness of less than 1mm. In comparison with CT, MRI produces the slice thickness merely close to CT and is adversely affected by the movement of the subject during longer scanning time. The superior resolution of CT image is the best imaging technique that facilitates bone to have a high-resolution 3D replica. With the help of a fine 3D printed model, surgeons can better anticipate the operative challenges and take into account factors such as the location of blood vessels and nerves for a better plan and outcome. In comparing with soft tissues, the printed model and the CT images of the bone are relatively comparable due to the rigidity of the bone and thus the 3D replica can totally reflect the real bone. These are the advantages of applying 3D printing in orthopaedics.

CT 對骨骼的卓越解析度,能幫助打印出高解析度的 3D 複製品
The superior resolution of CT image is the best imaging technique that facilities bone to have a high-resolution 3D replica.

自2013年起，我們與不同的專科合作，並且成功將3D打印模具運用在97項術前規劃和手術程序上，包括骨科、牙科、眼科、耳鼻喉科、泌尿科和放射治療。有見於3D打印技術顯著改善術前規劃，我們提供外科模具製作的服務，為臨床應用和研究製作3D骨骼模具。服務範疇包括但不限於手術器械製作、義肢設計、人體測量及分析等。歡迎醫護專業人員瀏覽我們的網站，並聯絡我們商討合作。

Since 2013, we have conducted multidisciplinary collaborations and successfully applied 3D printed models in 97 operations and procedures which include orthopaedic surgery, dental surgery, eye surgery, ENT surgery, urological surgery and radiotherapy. For its tremendous improvement in pre-operational planning, we offer surgical modeling services to fabricate 3D bone models for clinical applications and research programs. Services including but not limited to fabrication of surgical instruments, prosthesis design, anthropometric measurement and analyses. Healthcare professionals are welcomed to visit our website and contact us to discuss further on the collaboration.

Website：www.digiorthop.org

你們未來的發展方向？
What are the directions of future development?

3D打印有助手術過程更精準和縮短康復時間，對病人的益處是無可置疑的。然而，3D打印成本相比起傳統的模具鑄鍛技術為高。還有，術前計劃包括影像採集、影像後期處理、外科醫生與工程師商討等，所需的術前預備時間也較長。所以，降低成本和縮短術前計劃時間是目前的挑戰。

在不久的將來，生物打印是我們有望達成的目標。我們一直與中國科學院深圳先進技術研究院 (SIAT) 緊密合作，進行生物材料研究。在SIAT實驗室的3D打印機，能在4˚C下生產生物相容的材料，可以允許置入某些生物活性因子。我們也建立了全面的資料庫，儲存的資料包括能吸引血管和細胞生長的骨孔大小和所需的生長因子。因為軟骨的免疫反應相對較低，所以在受控環境下開發及應用具生物活性的3D打印軟骨於軟骨復修上存在根本上的優勢，進行生物活性植入骨骼的臨床試驗和臨床應用並非天方夜譚。

It is indisputable that 3D printing benefits patient to have more accurate operation and shorter recovery time. However, the production cost of 3D printing is still higher than the traditional casting and forging technology. In addition, pre-operative planning time that includes image acquisition, image post-processing, discussion between surgeon and engineer is also longer. Lowering the production cost and shortening pre-operative planning time are the challenges waiting ahead.

In the near future, bio-printing is our promising goal. We have been in close collaboration with the Shenzhen Institutes of Advanced Technology (SIAT) of the Chinese Academy of Science to engage in biomaterial research. The 3D printer in SIAT's laboratory can produce bio-compatible materials at 4°C allowing the incorporation of certain bioactive factors. We have also developed a comprehensive database; it contains information such as the pore size of the bone, the types of growth factors that can attract the blood vessel and cells to grow. The relatively low immune response in cartilage is one fundamental advantage to develop and apply 3D bio-printing in controlled-environment for cartilage repair in orthopaedics. Clinical trial and clinical application of bioactive bone implant is not impossible.

每日提要 Tips of the day

我們想翻譯一份英文問卷並用於以中國人為訪問對象的研究，什麼是適當的翻譯程序？
We would like to translate an English questionnaire for our study targeting Chinese interviewee. What is/are the appropriate procedure(s) of translation?

問卷翻譯的過程包括正向翻譯、由專家小組進行回譯、問卷測試和認知性晤談。翻譯的基礎是以達至文化和概念上的相同，而不是語言/ 文字上的對等，所以翻譯驗證的嚴謹度猶如進行研究。雖然臨床研究倫理聯席委員會未必會要求首席研究者PI遞交已驗證的中文問卷作審批條件；但是，期刊編輯有可能要求PI提供問卷有效性的證明，作為發表文章的條件。欲知有關翻譯程序的詳情，你可以瀏覽WHO網站http://www.who.int/substance_abuse/research_tools/translation/en/

Translation of the questionnaire includes forward translation, expert panel back-translation, pre-testing and cognitive interviewing. The focus of the translation is on cross-cultural and conceptual basis, rather than on linguistic/ literal equivalence. Validation of translation can be conducted as rigorous as a study. Ethics committee may not require PI to provide a validated questionnaire for the approval. However, journals editor may require supporting to prove the validity of the questionnaire for publication conditions. You can visit WHO website http://www.who.int/substance_abuse/research_tools/translation/en/ for the detailed procedures of translation.

“Clinical research”，“Clinical study”和“Clinical trial”三者之間有何不同？
What is the difference among clinical research/ clinical study/ clinical trial?

有一種誤解，認為“Clinical research”，“Clinical study”和“Clinical trial”是按「介入性」而釐訂；根據醫管局手冊“Clinical Research Management and Compliance at Study Sites” 1.1.5，從廣義上來說，“Clinical research”，“Clinical study”和“Clinical trial”三者是可互換的。如欲瞭解與臨床研究相關的資訊，如研究的依從性、法律事務、臨床試驗的品質及風險管理等，歡迎向CRMO索取醫管局手冊乙本。

There is a misunderstanding that clinical research is different from the clinical study and clinical trial in terms of intervention. According to the HA handbook “Clinical Research Management and Compliance at Study Sites” point 1.1.5, “clinical research”, “clinical study” and “clinical trial” are interchangeable in a broad sense. For more other information such as research compliance, legal affairs, quality and risk management on clinical trial, you are welcomed to get a hard copy of this HA handbook from CRMO.

通告 Announcement

更改威爾斯親王醫院聯絡號碼－臨床試驗協議書(CTA)及保證書(Indemnity Letter)

隨着威爾斯親王醫院於2017年3月31日更改電話/ 傳真號碼，由2632-XXXX更改為3505-XXXX，所有尚未簽署的臨床試驗協議書及保證書必須使用新聯絡號碼。

至於已簽署的臨床試驗協議書及保證書，請分別以電郵和傳真通知簽約各方，並建議將所發出的電郵和傳真與臨床試驗協議書及保證書一齊存檔。欲知詳情，請與我們聯絡。

Change of PWH contact number– Clinical Trial Agreement (CTA) and Indemnity letter

With the change of PWH contact number (phone/ fax) from 2632 XXXX to 3505 XXXX (effective 31 Mar 2017), please use the new contact number in the Clinical Trial Agreement (CTA) and Indemnity letter which has not signed yet.

For signed CTA and indemnity, please notify the signing party(ies) by email and fax, respectively. You are recommended to keep this email/ fax with your CTA/ indemnity letter as a documentation. You may contact us for more details.

臨床研究管理委員會（CRMC）2016年度報告

臨床研究管理委員會2016年度報告可在CRMO網頁和醫管局內聯網取得。這份報告概述CRMO和藥劑部(臨床研究) CRP的主要成果和過往活動包括但不限於聯繫各持份者和安排培訓工作坊等。如欲下載報告，請前往：

CRMO 網頁:
http://intranet.crmo.med.cuhk.edu.hk/eventnews.aspx#snp

醫管局內聯網:
https://gateway1.ha.org.hk/sites/h01/main/,DanaInfo=ntecspf02.home+ihosp_main.htm?hosp=ntec&dept=jcncrm&group=icommittee

CRMC Annual Report 2016

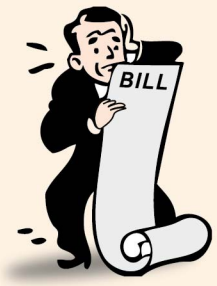
The CRMC Annual Report is now available on CRMO website and the HA intranet. The report summarizes the key achievements and various activities of CRMO and CRP including but not limited to liaison with stakeholders and organization of training workshops. To download the report, please go to

CRMO website:
http://intranet.crmo.med.cuhk.edu.hk/eventnews.aspx#snp

HA intranet:
https://gateway1.ha.org.hk/sites/h01/main/,DanaInfo=ntecspf02.home+ihosp_main.htm?hosp=ntec&dept=jcncrm&group=icommittee

院外存檔新服務：長期存檔的付款承諾

2017標記著CRMO院外存檔服務三周年，我們很高興得到你們的認同和支持。一直以來，我們致力提升服務以滿足你們的需要。有見於按月處理帳單或忘記繳費所帶來的壓力和挫折感（特別是年期長的存檔）；所以CRMO現開展了「承擔長期付款承諾」的新服務，有關的管理費用是按比例計算。歡迎聯絡我們獲取更多資訊。



New service in external archiving: Payment Undertaking of long-term storage

2017 marks the 3rd anniversary of our offsite document storage service; we are pleased to have your appreciation and continuous support. We have been upgrading our services to meet your needs. In view of the expected burden in handling monthly invoice and the frustration lead by outstanding payment, especially for those studies requiring long storage period for documents, CRMO is now launching a payment undertaking service for such long term storage. The management fee is on the pro-rata basis. You are welcomed to contact us for more information.

更新臨床研究統籌處–標準操作程序 CRMO-SOPs

CRMO-SOPs新增了與品質保證有關的品質保證人員 (CRMO-SOP-021) 和品質保證審查 (CRMO-SOP-022) 的SOPs；亦更新了有關研究者資格要求和責任的SOP (CRMO-SOP-004)，並於2017年4月1日生效。

為了促進跨學科之間的合作，CRMO-SOPs現在可從以下不同的平台取得。請任何時候瀏覽網站獲取更新的版本。

Updates on CRMO SOPs

Two new CRMO SOPs regarding the Quality Assurance issues such as QA Person (CRMO-SOP-021) and QA reviews (CRMO-SOP-022) and an updated CRMO SOP regarding the qualification and responsibilities of investigators (CRMO-SOP-004) have come into effect on 1 Apr 2017.

Our SOPs are now available on different platforms to facilitate cross- disciplinary collaboration. Please always refer to the below websites for the latest version of CRMO-SOPs.

- **CRMO網站註冊會員 CRMO website registered members：**
  http://intranet.crmo.med.cuhk.edu.hk/CRMCApps/CRMOSOPs.aspx（此連結提供線上視頻培訓）
- **醫管局職員 HA Staff：**
  https://gateway1.ha.org.hk/sites/h01/main/,DanaInfo=ntecspf02.home+ihosp_main.htm?hosp=ntec&dept=jcncrm&group=icommittee
- **中大醫學院職員 Staff of Faculty of Medicine：**
  https://webapps.med.cuhk.edu.hk/intranet/
- **中大職員（非醫學院）CU Staff (non- Faculty of Medicine)：**
  https://gocuhk.sharepoint.com/sites/Faculty.MED.CRMO/SitePages/Home.aspx
- **中大學生（非醫學院）CU Student (non- Faculty of Medicine)：**
  https://mycuhk.sharepoint.com/sites/Faculty.MED.CRMO/SitePages/Home.aspx

工作坊 Workshops

臨床研究入職培訓

「臨床研究入職培訓」半日班每月定期以小組教學模式進行，課程包括介紹GCP、CRMO-SOPs的概念和一般臨床研究的做法。歡迎中文大學和新界東醫院聯網的臨床研究人員參加。首次舉辦的培訓班已於7月7日舉行，小組教學令每位參加者積極投入參與。欲瞭解詳情，歡迎隨時聯絡我們或直接於網上註冊：
http://intranet.crmo.med.cuhk.edu.hk/CRMCApps/InductionProgram.aspx

Clinical Research Induction Program

The half-day “Clinical Research Induction Program” is conducted using small group instruction to introduce the general concept of GCP, CRMO SOP and clinical trial practices every month. Both clinical research personnel of CUHK and NTEC are welcomed. The first workshop was held on 7 Jul for our new clinical research personnel. The small group instruction encouraged our participants to engage actively during the workshop. Please feel free to contact us for more information or do the registration directly at http://intranet.crmo.med.cuhk.edu.hk/CRMCApps/InductionProgram.aspx

聯絡方法 Contact us

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Joint CUHK-NTEC Clinical Research Management Office (CRMO)

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Address: 8/F, Lui Che Woo Clinical Sciences Building, Prince of Wales Hospital, 30-32 Ngan Shing Street, Shatin, Hong Kong

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