2017 台英醫療器材發表暨洽談會

UK-Taiwan Innovation in Medical Devices & MedTech Showcase & B2B Meeting

Deltex Medical is a UK based company that designed and developed the CardioQ-ODM+ Oesophageal Doppler Monitor (ODM) www.deltexmedical.com

Deltex Medical has direct sales teams based in the UK, USA, Canada and Spain. In the USA Deltex direct employs 26 field staff supporting the implementation programs around the ODM.

The ODM is a minimally invasive, evidence-based ultrasound technology used to optimise fluid levels in patients in intensive care or undergoing medium to high risk surgery.

In the UK the ODM has specific NICE guidance for use on over 800,000 surgical procedures (http://www.nice.org.uk/guidance/MTG3) and in the USA has a positive Medicare National Coverage Decision (NCD)

The Centers for Medicare and Medicaid Services (CMS) also provides coverage for use of the ODM. CMS determined that ODM is "reasonable and necessary" for all Medicare beneficiaries who meet the criteria for the following patient populations:

- *Monitoring of cardiac output for ventilated patients in the ICU; and*
- *Operative patients with a need for intra-operative fluid optimisation*

The CMS' decision was based on the strength of the clinical evidence for ODM, including a technology assessment from the Agency for Healthcare Research and Quality (AHRQ) that concluded that in "patients undergoing surgical procedures with an expected substantial blood loss or fluid compartment shifts requiring fluid replacement" the clinical evidence for the use of ODM was strong.

ODM has a unique code to facilitate professional billing and payment and on April 1, 2013, CMS issued a code for professional services associated with the use of ODM: G9157, Transesophageal Doppler used for cardiac monitoring.

In the UK the ODM is standard of care and in Europe is one of the main elements used within Enhanced Recovery surgical programmes which are now being adopted at pace and scale in the USA.

When this technology is used it has been clinically proven to reduce post-op complications, re-admission rate, re-operation rate, overall hospital length of stay and consequently reduce costs significantly.

Contact Info: Andy Mears
Managing Director
Tel: +44 1243 774837
Email: andy.mears@deltexmedical.com

Target Audience for ODM

The device is primarily used in the operating room and intensive care, so our end user is the anesthetist and intensivist. However the hospital C-Suite (Finance Director) need to understand the benefits of this technology as per patient savings per hospital surgical admission have been estimated between $1500-$5000 per patient.

Deltex Medical has established a sales network across parts of Asia, but has never launched the device in Taiwan. We are looking for distributors of medical devices that currently sell into the operating room environment.

Deltex Medical is listed on the London Stock Exchange and so investment opportunities are also a possibility too.

設計和開發食道都卜勒檢測儀CardioQ-ODM+的Deltex Medical是一家英國企業，其網址為：www.deltexmedical.com。

Deltex Medical在英國、美國、加拿大和西班牙設有直銷團隊，其中在美國直接聘僱26名外勤工作人員，負責支援執行食道都卜勒檢測儀(Oesophageal Doppler Monitor，簡稱ODM)的相關計畫。
ODM是一種侵入程度最低、以證據為醫療根據的超音波科技，用於為重症或接受中到高風險手術病患提供最理想的輸液量。

英國國家衛生與臨床醫學卓越研究院(National Institute for Health and Clinical Excellence，簡稱NICE)針對ODM在超過80萬項手術程序的應用編纂詳盡指南(請見http://www.nice.org.uk/guidance/MTG3)。美國聯邦醫療保險(Medicare)的全國保險範圍政策(National Coverage Decision，簡稱NCD)則將ODM納入確定給付項目。

美國聯邦醫療保險和醫療補助服務中心(Centers for Medicare and Medicaid Services，簡稱CMS)也將ODM納入保險給付範圍。該中心裁定，ODM對所有符合下列患者條件的聯邦醫療保險受益人來說是「合理且必要」的醫療選項：

1. 為需使用呼吸器的加護病房患者監測心血輸出量*(cardiac output)*。
2. 需在手術中接受最佳化輸液的手術患者。

CMS將ODM納為給付項目，是根據ODM的大量臨床證據而決定，包括美國健康照護研究與品質局(Agency for Healthcare Research and Quality，簡稱AHRQ)的技術評估結論指出「預料會發生大量失血或體液空間變化的手術病患，需要接受體液補充」，須使用ODM治療的臨床證據相當充分。ODM擁有專屬的專業請領和給付代碼。針對經食道都卜勒檢測儀(Transesophageal Dopple)用於心臟檢測的療程，CMS在2013年4月1日指定其專業服務代碼為G9157。

ODM在英國已被視為一般照護科技。歐洲目前正以媲美美國的速度和規模，推動促進恢復(Enhanced Recovery)外科計畫，ODM被列為該計畫的主要項目之一。

ODM科技在臨床上已證實可減少術後併發症、降低再次住院和再次手術機率，以及減少住院總天數，因而得以大幅降低醫療成本。

連絡資訊: Andy Mears
Managing Director
Tel: +44 1243 774837
Email: andy.mears@deltexmedical.com

食道都卜勒檢測儀(Oesophageal Doppler Monitor，簡稱ODM)的目標客戶

該裝置主要用於手術室和加護病房，因此本公司產品的終端用戶是麻醉科醫師與專責重症專科醫師。不過醫院高層主管(財務總監)有必要了解此科技的好處，因為平均每位病患每次住院開刀可省下的金額，估計在1,500至5,000美元之間。

Deltex Medical公司已在亞洲部分地區建立銷售網絡，但該裝置從未在台灣上市。我們正在尋找目前銷售手術室醫療器材的經銷商。

Deltex Medical於倫敦證交所(London Stock Exchange)上市，因此有興趣者亦有機會投資該公司

Premaitha is a molecular diagnostics company which uses the latest advances in DNA analysis technology to develop safer, faster and regulatory approved non-invasive screening tests for pregnant women.

Premaitha's lead test - the IONA® test - was launched in February 2015 and is the leading CE marked complete system which estimates the risk of a fetus being affected with Down's syndrome or other genetic conditions. The IONA® test is performed on the mother's blood sample - which contains traces of fetal DNA - and then analysed using next generation DNA sequencing technology from ThermoFisher Scientific.

Unlike existing prenatal screening methods, due to its speed and high level of accuracy, the IONA® test can significantly reduce the number of women subjected to unnecessary invasive follow up diagnostic procedures which carry a risk of miscarriage.

NIPT is an emerging, multi-billion dollar global market and Premaitha's complete CE Marked system enables laboratories and health care practitioners to offer an approved, non-invasive prenatal screening solution in-house.

Premaitha is based in Manchester Science Park, United Kingdom and its shares trade on the AIM market of the London Stock Exchange (AIM: NIPT). For further information please visit www.premaitha.com. Follow us on twitter @PremaithaHealth.

NEWS

- 英國 Premaitha Health 宣布收購 台灣 有勁生物科技…(更多訊息)

- **Conditional Acquisition of Yourgene Bioscience and Posting of Circular**
  Manchester, UK - 21 December 2016: Premaitha Health PLC (AIM: NIPT), developer of a leading CE-marked non-invasive prenatal screening system ("NIPT"), announces the conditional acquisition of Yourgene Bioscience Co., Ltd ("Yourgene") (the"Acquisition"), a significant NIPT provider in Asia and the posting shortly of a circular convening a General Meeting in relation to the Acquisition and a proposed share sub-division…(More)

What is the GPC WoundCare Application?

Software that provides a more accurate and consistent way to measure and manage wounds, such as pressure ulcers, through the use of a 3D photograph that can be taken by non-specialists.

Why did we develop the GPC WoundCare Application?

3. Lack of standardization around wound documentation leads to unfavourable outcomes [1]
4. Practitioners are inconsistent and inaccurate at gathering accurate measurement data or conforming with strict documentation standards, resulting in different outcomes or levels of reporting [2]
5. Recognized issues with the accuracy of wound assessment by non-specialized staff [3]

Why is it different?

It measures depth! By being able to measure how far away something is, the application allows the user to accurately measure the length, width and importantly, the depth of a wound.

Furthermore, by combining length, width and depth we have an ULNIT [tm] (Ulcer Unit) that can be used to monitor the healing process of individuals and the resource burden of a population.

Can't I do this with any photo?

No. A standard photo is flat. It doesn't know how far away something is and therefore you cant accurately and consistently measure distance or depth.

Why is this better than current methods such as paper rulers and acetate?

Trying to measure a wound size in using rulers or acetate is subjective and inaccurate. The WoundCare application captures all this information accurately and its as easy to use as taking a picture.

Do I need a separate device or camera?

No, the camera we use is available in off the shelf, consumer tablets and laptops from a number of major leading manufacturers such as Lenovo and HP.

Is it being used anywhere?

Yes, the application was developed in conjunction with tissue viability specialists and is in use at a number of healthcare facilities. References are available on request.

Will it work with my existing systems?

Yes, integration was a key part of the system design. In addition, an API is available for those organisations wishing to integrate the key functions of the application right into their systems.

何謂*GPC WoundCare*應用程式*(App)*？

此軟體透過可由非專業人士拍攝的3D(立體)照片，以更精確且一致的方式測量與處置壓瘡(pressure ulcer)等傷口。

本公司為何開發 *GPC WoundCare*應用程式？

1. 傷勢紀錄缺乏標準化，會引發不利的後果。[1]
2. 執業醫師在蒐集正確測量資料或確認嚴格的資料標準時，使用的方法會前後不一和不夠精確，導致病例報告出現不同的診斷結果或傷勢程度。[2]
3. 非專業人員的傷勢評估精確性普遍受到質疑。[3]

該應用程式有何獨到之處？

此程式可測量深度！它能測量物體的距離，讓使用者不但能精確測量傷口的長度和寬度，重要的是還可測深度。

此外，綜合長度、寬度和深度等數據可算出ULNIT [tm](即Ulcer Unit，潰瘍單位)，可用於監控個人的痊癒過程，以及對當地人口造成的資源負擔。

該應用程式可否使用任何照片？

不可。一般照片都是平面，無從得知物體的距離，因此在測量距離或深度時，無法得到精確且前後一致的測量結果。

此應用程式為何優於紙尺等既有測量方法？

試圖使用紙尺等工具測量傷口大小，結果很主觀，且通常並不精確。GPC WoundCare應用程式可以精確測量所有資訊，且操作過程就像拍照一樣容易。

是否還須準備其它裝置或攝影機？

不必。該程式使用聯想(Lenovo)、惠普(HP)等多家主要製造商生產的現成相機、平板電腦和筆記型電腦。

該應用程式可否在任何環境下使用？

可以。該程式是由本公司和組織活力專科人員一起開發，獲得許多健康照護機構採用。歡迎索取參考資料。

該應用程式可否和既有的傷勢評估系統一起使用？

可以。易於整合是該系統設計的重要特色之一。此外，任何組織若希望將該應用程式的重要功能整合到他們的既有系統中，有應用程式界面(API)可供使用。

Appendix A: Background and Motivation

The lack of standardization of wound documentation is common which can lead to an unfavorable outcome.[1] Practitioners are inconsistent and inaccurate at gathering accurate measurement data or conforming with strict documentation standards, resulting in different outcomes or levels of reporting.[2]

The assessment and staging of wounds is subjective and open to personal interpretation, especially considering pressure ulcer care is a key indicator of good nursing care for any institution.

The use of GPC WoundCare and the Intel® RealSense™ 3D camera, measuring and monitoring ulcers will produce standardization, consistency and accuracy of assessment, improving the management and healing of ulcers

There are recognized issues with the accuracy of wound assessment by non-specialized staff.[3] This includes treatment decisions. In a retrospective analysis, 78.5% of patients treated by a qualified wound care nurse healed in comparison to the 36.3% of those treated by non-certified nurses.[4] Wound specialists are a central part of the wound care system, but are scarce and there are many demands upon their skills. This includes input into wound management protocols and reviewing those protocols, support of colleagues and outreach work in hospitals and the community .[5] It is obvious that a lack of the necessary skilled oversight will lead to unnecessary patient suffering, readmissions, penalties and litigation risks, additional care and extra costs. For instance, hospital admissions and extended hospital stays typically consume 37%-49% of the total cost of wound care.[6]

The use of GPC software and Intel® RealSense™ 3D camera enables more efficient deployment of the specialized clinicians, the progress of wounds can be accurately monitored such that action can be taken before significant deterioration. Alternatively if the wound is healing on track the specialist can be reassured that no further intervention is required

The incremental cost of treating stage 1 PUs is just over $2,000, stage 2 PUs range between $3,000-$10,000, stage 3 PUs range between $5,900-$14,840, and stage 4 PUs cost as much as $18,730-$21,410.

- Pressure Ulcers cost $12 billion pa affecting 2.5 million patients.[7]
- Better measurement and monitoring evidenced above will heal ulcers quicker, prevent the deterioration of ulcers and avoid admissions.
- This will reduce the cost of wound care by at least 10%
- This equates to $480 per patient

Avoidance of Litigation: Up to 20% of all US legal medical claims and more than 10% of settlements are wound related[8], there are more than 17,000 pressure ulcer-related lawsuits filed annually in the United States.[9] Settlements average $279,000 each.[10] Documentation is a critical success factor in pressure ulcer litigation.[11] If documentation can prove no neglect occurred, a lawsuit is less likely to proceed; however, many out-of-court settlements have been forced on providers because of a lack of evidence of care, not necessarily the absence of care itself.[12]

The avoidance of one claim justifies the treatment 0f 56,000 patients

附錄A：背景與動機

傷勢紀錄普遍缺乏可供依循的一致標準，可能引發不利的後果[1]。執業醫師在蒐集正確測量資料或確認嚴格的資料標準時，使用的方法會前後不一和不夠精確，導致病例報告出現不同的診斷結果或傷勢程度[2]。

傷勢評估與痊癒階段判斷都很主觀，會有個人詮釋的空間，尤其壓瘡(pressure ulcer)照護對所有機構來說是評判優良護理照護的關鍵指標。

使用GPC WoundCare應用程式和英特爾(Intel®)的RealSense™3D攝影機測量和監控傷口，可產生具備標準化、一致性和精確度的評估結果，能提升傷口處置品質和加速痊癒。

非專業人員對治療決策和其它傷勢評估的精確性普遍受到質疑[3]。一項檢討調查分析發現，由合格傷口照護護理師治療的患者痊癒比率為78.5%；相較下，由不具此資格護理師治療者的痊癒比率則為36.3%。傷口照護專科人員是傷勢照護系統的核心，但其人數卻極為不足，市場對其專業技能的需求非常高，包括傷勢處置書的資料輸入和檢查、支援同事，以及在醫院與社區的延伸工作等。[5] 若找不到具備必要技能的人監督傷口痊癒，顯然會導致病患承受不必要的痛苦、再次入院治療、不利後果和訴訟的風險、需要接受更多照護，以及額外支出等。以住院和延長住院為例，一般會占整體傷口照護成本的37%至49%。

使用GPC程式和英特爾RealSense™3D攝影機，能讓專科臨床醫師的調度更有效率，更精確監控傷口的痊癒進展，在傷勢顯著惡化前就先採取行動。抑或當傷口持續痊癒時，專科醫師也能再次確認無須採取進一步矯治措施。

治療第一階段壓瘡的增量成本(incremental cost)略高於2,000美元，第二階段為3,000至10,000美元之間，第三階段為5,900至14,840美元，第四階段則高達18,730到21,410美元。

1. 壓瘡的醫療支出為120億美元，影響病患達250萬人。
2. 前述證據證明，改善傷口測量和監控可加速傷口痊癒，避免傷勢惡化和住院。
3. 可讓傷口照護成本至少減少10%。
4. 相當於每位患者省下480美元。

避免訴訟：美國多達20%的醫療索賠訴訟和超過10%的和解案均和傷口有關[8]，美國每年有1.7萬多件官司和壓瘡有關[9]。每件和解案的平均和解金額為27.9萬美元[10]。傷勢紀錄是壓瘡訴訟勝訴的不可或缺成功因素[11]。傷勢紀錄若能證明醫療人員並無疏失，則案件就不太可能成立；不過許多庭外和解都是照護提供者因缺乏照護證據而被迫和解，未必是和未提供完善照護有關[12]。

附錄**B**：參考文獻
Appendix B: References

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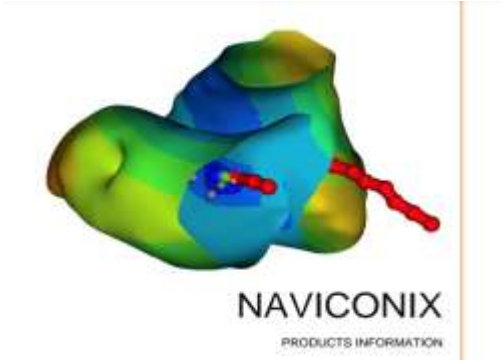


NAVICONIX – Fast Cardiac Mapping Technology

NAVICONIX offers a suite of developmental products and services that bring the highest level of computer science to the hospital heart rhythm care. The concept is changing substantially cardiac arrhythmia processes, and allows new assessment and measurement of disorders namely by introduction of Forward Computation Services and utilization of virtualization software.

NAVICONIX INTEGRATOR SOFTWARE
Remote Application

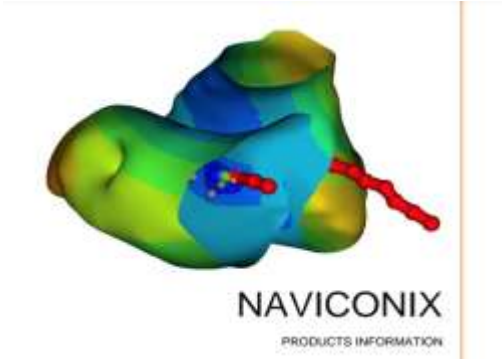
The Remote Application by NAVICONIX is a virtualization package introducing novel concept of cardiac mapping to the market. NAVICONIX software prototype is available in a modular structure featuring Simulator, Generator and Fast Mapping Integrator. The Integrator allows users to replay clinical data acquired by the Local Application (see further) during their clinical arrhythmia procedures. It is also suitable for training, education and customer feedback useful for further development. The software is delivered on a remote service basis, sold and/or made available under license agreement. The license include maintenance, update/upgrade, and training/education arrangements. See http://www.naviconix.com/customer-area to sign-up for the access to the Remote Application. We strongly suggest to understand Remote Application as only a first step to fully engage with NAVICONIX fast cardiac mapping technology.

Local Application
Local Application is being developed as a hardware-accelerated integrator for on-site both invasive and non-invasive cardiac mapping. It features live data recording interface and similar user interface as the Remote Application.

NAVICONIX FORWARD COMPUTATION SERVICES
Cardiac imaging analysis (so called segmentation) and a 3D model production is provided as a service that is out of scope and capabilities of current competitors and healthcare providers. The 3D models (scar maps for example) and their computational output (forward matrices, cardiac surface meshes) are prerequisite for cardiac mapping with NAVICONIX and are required by early adopters for pre-assessment and non-invasive case assessment of the patient cases. By signing-up for the Integrator Software (Remote Application as a first step), you are automatically eligible for the Forward Computation Services. Please, make sure with your health service institution about appropriate data processing (anonymization etc.) before sharing your cardiac imaging and ECG data with NAVICONIX for research and development purposes.

DISCLAIMER
NAVICONIX is currently developing a new computerized technology and conducts research in the field of natural sciences (cardiac electrophysiology). NAVICONIX currently does not sell any Medical Device as defined in EU directive 93/42/EEC or similar regulatory measures worldwide. Our research and development outputs have not been used yet for diagnosis or treatment of a disease.

http://www.naviconix.com/



NAVICONIX
積分器軟體
遠端應用

NAVICONIX的遠端應用(Remote Application)是一套虛擬化方案，向市場介紹心臟電生理標測的嶄新觀念。本公司的軟體原型以模組式結構呈現，內容包含模擬器(Simulator)、產生器(Generator)和心臟電生理快速標測積分器(Fast Mapping Integrator)。其中積分器可讓使用者在進行臨床心律不整治療程序時，回顧區域應用(Local Application，進一步說明請見下一段)取得的臨床資料，而且也適用於訓練、教育和客戶反饋等有助於進一步開發工作的用途。該軟體係透過遠端服務方式交貨，根據授權協議進行販售和/或提供。授權內容包括維修、更新/升級，以及訓練/教育活動。欲使用本公司的遠端應用，請至http://www.naviconix.com/customer-area登錄。我們強烈建議，若欲充分善用NAVICONIX的心臟電生理快速標測科技，第一步就是了解遠端應用。

區域應用

本公司開發區域應用(Local Application)作為侵入式與非侵入式心臟電生理標測的現場硬體加速積分器，其特色包含現場資料紀錄介面，以及類似遠端應用的用戶介面。

NAVICONIX正向計算服務

本公司所提供的心臟造影分析(即所謂的影像分割)和3D立體模型製作服務，已超越目前其它競爭對手和健康照護業者的業務範圍與能力。使用NAVICONIX產品進行心臟電生理標測系統前，須先備妥3D模型(例如傷疤位置圖)及其計算數據(例如正向矩陣、心臟表面積網格)；初期採用者針對病患情況進行預先評估和非侵入式療程評估時，也須備妥3D模型和計算數據。用戶登錄使用本公司的積分器軟體(第一步就是開啟遠端應用)後，就自動獲得正向計算服務(Forward Computation Services)的使用資格。在您基於研發目的而和本公司分享心臟影像和心電圖資料前，請先向您所屬的衛生服務機構確認進行適當的資料處理(例如匿名化等)。

免責聲明
NAVICONIX 公司目前正在開發一項新的電腦化技術，並進行心臟電生理學的自然科學領域研究。本公司目前並未銷售歐盟醫療器材行政命令 93/42/EEC 或全球其它類似監管措施所規範的任何醫療裝置。本公司的研發成果尚未應用於診斷或治療任何疾病。

Oxford Endovascular Limited is a spin out from The University of Oxford. The Company is developing metallic mesh tube devices invented by engineers and clinicians at the University to treat patients suffering from brain aneurysms. OE has raised £2m from investment company Oxford Sciences Innovation PLC, the University of Oxford Innovation Fund and private investors from China.

Oxford develops tiny mesh tube devices to treat brain aneurysms

An Oxford spinout is developing advanced tiny metallic mesh tube devices invented by engineers and clinicians at the University to treat patients suffering from brain aneurysms.

Oxford Endovascular has raised £2m from investment company Oxford Sciences Innovation PLC, Parkwalk Advisors and other private investors to take the device through clinical trials, and ultimately aims to treat thousands of patients worldwide.

A brain aneurysm is a weakened point in a blood vessel where the pulsing blood pressure causes the wall of the vessel to balloon or bulge. About one in 50 people in the UK develop aneurysms each year. If an aneurysm is left untreated it can burst or rupture, causing intense pain and life-threatening bleeding into the brain which will result in serious brain damage or death.

James Byrne, a Professor of Neuroradiology at the John Radcliffe Hospital and Zhong You, a Professor in the Department of Engineering Science designed the device after observing the limitations of existing treatments.

The Oxford technology uses a special laser-cut metal alloy which has a shape-memory. It can be posted into a catheter during surgery, inserted into the brain and opened up into a tiny mesh tube ('flow diverter') that fits into the natural shape of the blood vessel. This diverts the blood away from the aneurysm, allowing it to heal.

CEO Mike Karim said: 'Cerebral aneurysms in the brain are unfortunately very common, and a third of people who develop this problem will die. A third of survivors will suffer permanent neurological damage if left untreated.'

Oxford Endovascular's chairman, Brian Howlett, said: 'We believe the Oxford Endovascular device will dramatically improve outcomes for patients, as many cannot be treated with current technologies. Physicians will be able to place the device more accurately and in a wider range of patients ensuring treatment is safer and more effective. Our aim is that they will also be able to treat deeper brain blood vessels not accessible with existing devices.'

http://www.oxfordendovascular.com

Gelexir Healthcare Limited offers a non-surgical procedure for the treatment of chronic lower back pain caused by degenerative disc disease (DDD). The company develops an approach that addresses DDD at an early stage before the onset of irreversible disc degeneration of the nucleus pulposus and annulus fibrosis material. Its procedure includes injection of pH responsive double cross link hydrogel that collaborates with the native nucleus pulposus, compensates the consequences of the degradation, and slows down the progression of the degeneration of the nucleus. The company was incorporated in 2012 and is based in Nether Alderley, United Kingdom.

TECHNOLOGY

Chronic Low Back

Low Back Pain affects 80% of the population once in their life. Chronic Low Back Pain is resulting in Activity Limitation in about 18% of the global population, from whom, in 40% of the cases, pain is primarily generated within the disc. More than 5.5 million of Low Back Pain patients in Europe are expected to potentially benefit from a Nucleus Augmentation procedure.
The associated cost of this condition to society is estimated at over € 100 billion annually in the 'developed' countries

The Back pain results from the altered biomechanics and biology of the InterVertebral Disc (IVD).

- A cascade of biological events have been identified leading to the degradation of the naturally occurring hydrogel (the aggrecan) and altered functioning of the IVD cells within the nucleus pulposus (NP) The process results in loss of disc height, impaired load bearing capacities and pain.
- Augmenting the nucleus pulposus of the IVD with a biomimetic hydrogel will restore the mechanical environment of the IVD, will return disc cell function towards normal thereby reducing back pain…(More)

Gelexir Concept

- Gelexir's approach centres on a pH responsive Double Cross Link hydrogel (DXM) designed to collaborate with the native Nucleus Pulposus. The DXM, thanks to its hydrophilic properties, works as an alternative to the degraded proteoglycan matrix, the protein mesh surrounding the cells, and therefore compensates the consequences of the degradation and slows down the progression of the degeneration of the Nucleus.
- What is novel is that we exploit the interconnecting slits found in the degenerate disc to act as a reservoir for an injectable hydrophilic load bearing material. Residual disc tissue is preserved.
- Proof of Concept tests have confirmed that the hydrogel has sufficient strength to restore and maintain the disc height over time, that it is fully biocompatible and that it interacts well and without complications with naturel Nucleus cells. In vivo tests have been conducted on big animals (sheep)
- Gelexir's DXM gel will be effective in restoring close to normal dynamic pressure environment within the disc and have a favourable effect on cell biology that will slow down the Degenerative process, thereby contributing to the strength and mobility of the disc and to the pain relief associated with disc water loss and material degradation.
- Gelexir's approach fills an unmet gap in the treatment continuum between ineffective conservative care and last resort definitive surgical methods. The procedure has the potential to provide significant pain relief for patients, slow the progression of the accelerated disc degeneration and also reduce the need for invasive surgical intervention.

Publications

- **First in-vivo data introducing the concept.** - Preliminary-report-of-use-of-a-novel-gel.pdf **…**(More)

https://www.gelexir-healthcare.co.uk/