

澳大利亚生物技术协会 澳大利亚医疗技术公司名录



公司资料

公司名称: Endogene Ltd

关键联系人姓名: Ron Lewis

关键联系人职位: 执行总裁

公司网址: www.endogene.com.au

公司地址: Suite 10, 2 St Andrews Street, Brighton VIC 3186

该公司尚未上市。

关于公司

Endogene 已研发出四种独一无二且功能可靠的医疗器械技术。

自移式内窥镜，此内窥镜能在约 45 分钟内完成整个小肠和大肠导航。此种内窥镜使用完全位于探针内部的简单液压推进系统。它能让肠胃导航更方便、缩短检查时间并且比当前现有器械更加安全，同时具备传统内窥镜的所有功能。经过专门培训的全科医师和护士无需对肠胃进行镇静便可使用此种内窥镜进行筛查。此种内窥镜的一大突破是能够可靠迅速地完成小肠导航，另一独特优势是可以协助完成各类小肠内手术。已在猪身上成功完成动物试验；已成功完成初步人体安全测试。Endogene 自移式内窥镜的独特推进系统确保该内窥镜可控制，并且可以停止前进、转向或是调换位置以进行重复检查，还可以配合充气器械检查肠皱襞情况，同时还可以在该器械的工作槽内安装其他工具进行检查。例如，安装肠道支架以减轻克罗恩病患者或其他炎性肠病患者的肠道狭窄情况。Endogene 已研制出此种内支架，并将其与内窥镜的配合使用申请了专利。这是小肠相关疾病治疗领域的一个重大进展。

临时性外科小夹钳系统能够立即应用或移除小夹钳，可在整个组织上均匀加压。在初步测试中成功完成 25 项人体手术。处于 PPD 阶段和临床试验阶段。

回收器械能够捕获并移除结石和其他异物。处于 PPD 阶段和临床试验阶段。

血管固定器械已成功在动物试验中于半小时内完成微创心脏搭桥手术。

Endogene 计划在两年内使其自移式内窥镜这一领先技术获得监管批准，然后首先进入新兴市场。一旦获得监管批准后便会考虑合作伙伴或同行买卖等相关事宜。随后会着手进行小夹钳系统和回收器械的市场进入问题，同时寻找合作伙伴。

Endogene 拥有商业化咨询委员会和科学咨询委员会的支持，增强了其董事会和关键工作人员的力量。随着 Endogene 进入商业化前期阶段，员工队伍也在不断拓展。

关键或领先技术

自移式内窥镜属于一种突破性技术和平台技术。

近期的两项交易显示出了相应价值需求的潜力：

- 2014 年 Covidien 收购 Given Imaging (PillCam 公司) 的费用为 8.6 亿美元 (合 11 亿澳元)
- Check-Cap 的胶囊内窥镜器械可为肠内部拍摄 X 光照片，该公司 2015 年在纳斯达克上市并筹资 2400 万美元 (合 3100 万澳元)，其上市市值为 6100 万美元 (合 8000 万澳元)。Check-Cap 的产品并未获监管批准，除了无需提前进行肠道准备之外，其产品功能与 PillCam 几乎相同。

在肠道导航和小肠内检查方面拥有直接潜在市场。由于胶囊内窥镜在肠道内前进时无法进行控制和其他相应检查，因此在观察肠道情况方面作用有限。现有的推进式内窥镜和气囊内窥镜无法进行可靠、及时或可行的小肠内导航。

在检查和单独成像方面，Given Imaging 的 PillCam 相关产品的年销售额为 1.2 亿美元，再加上其他胶囊相机，medicaldevices-developments.com 网站估计到 2017 年每年的总体市场价值为 3.2 亿美元。此数字还包括 Fujinon 双气囊内窥镜的销售额，该内窥镜目前用于许多医院和诊所。

潜在市场的第二大重要元素为结肠镜筛查市场。筛查程序方面，老年人和健康机构对于尽早确定肠道问题的关注与日渐增。单是中国的 50 岁以上人口便有 2.5 亿左右。

类别

器械：肠胃病学

关键或领先技术的研发阶段

临床前

所寻机遇

Endogene 在寻找战略投资合作伙伴，共同将该领先技术大规模推向市场。该公司同样还针对其他技术寻找潜在合作伙伴、被许可方或收购方。Endogene 意识到目前阶段的各参与方都将获得突破性的价值增加，并计划在 2-3 年内通过首次公开募股和/或同行买卖/合作伙伴的方式提升价值。

Directory of Australian medtech companies



COMPANY DETAILS

Company name: Endogene Ltd

Key contact name: Ron Lewis

Job title of key contact: Executive Chairman

Company website address: www.endogene.com.au

Company address: Suite 10, 2 St Andrews Street, Brighton VIC 3186

The company is Unlisted.

ABOUT THE COMPANY

Endogene has developed and proven four unique medical device technologies.

Self-advancing endoscope, endoscope capable of navigating the entire length of the small and large intestine in around 45 minutes. It utilises a simple hydraulic-based system of propulsion which is totally internal to the probe. It delivers easier navigation, reduced procedure time and is safer than existing devices whilst retaining all the functionality of traditional endoscopes. Able to be used without sedation by trained GPs and nurses for screening procedures. Its ability to navigate the small intestine reliably and quickly is a major breakthrough. Facilitating the conduct of procedures within the small intestine is another unique feature. Animal trials in pigs successfully completed; preliminary human safety test successfully completed. The unique propulsion system in Endogene's self-advancing endoscope means it is controllable, can be stopped, reversed, repositioned for repeat inspection and can see into the folds of the bowel through the use of air inflation. Procedures can also be conducted, with tools mounted inside the device working channel. A specific example is the delivery of an intestinal stent to alleviate bowel narrowing in patients suffering from Crohn's disease or other inflammatory bowel problems. Endogene has developed such a stent and patented its delivery with the use of its endoscope. This is an important and major advance in treatment of small bowel conditions.

Temporary surgical clip system capable of instant application and removal of clips and applying even pressure across the tissue. Successful conduct of 25 human procedures in preliminary testing. Ready for PPD phase and clinical trials.

Retrieval device for capture and removal of stones and other foreign bodies. Ready for PPD phase and clinical trials.

Vascular stapling device delivering keyhole heart bypass surgery in less than half an hour has completed animal testing.

Endogene has a two-year plan to take its lead technology, the self-advancing endoscope, through to regulatory approval, planning for market entry into emerging markets first. Consideration will be given to partnering or trade sale once regulatory approval gained. The clip system and retrieval device will be dealt with sequentially, with partnering opportunities also to be explored.

Endogene has the support of a Commercialisation Advisory Board and a Scientific Advisory Board, complementing its Board of Directors and key personnel. Broadening of the personnel complement is underway as Endogene moves into the pre-commercialisation phase.

KEY OR LEAD TECHNOLOGY

Self-advancing endoscope is a disruptive technology and a platform technology.

Two recent transactions illustrate the potential of the value proposition:

- The 2014 sale of Given Imaging (the PillCam company) to Covidien for US\$860 million (A\$1.1 billion)
- The 2015 NASDAQ listing of Check-Cap, a capsule endoscopy device taking xray's inside the bowel instead of photos, which delivered a listing capitalisation of US\$61 million (A\$80 million) after raising US\$24 million (A\$31 million). Check-Cap's product is not regulatory-approved and its functionality little different from the PillCam (except that it does not require bowel preparation pre-procedure).

Immediate addressable market is in navigation and conduct of procedures within the small intestine. Capsule endoscopy is of limited use in observation as it cannot be controlled during its passage through the bowel and does not allow for conduct of procedures. Existing push endoscopes and balloon endoscopes are not capable of navigating the small intestine in a reliable, timely or viable manner.

For inspection and imaging alone, led by Given Imaging's PillCam with annual sales around US\$120 million, together with alternative capsule cameras, medicaldevices-developments.com estimates the total market to be US\$320 million per annum by 2017. To this may be added Fujinon's double-balloon endoscope, currently used in many hospitals and clinics.

The second important element of the addressable market is the screening colonoscopy market. Ageing populations and health authorities' concerns for early recognition of issues within the bowel have seen growth in screening programs. In China alone there are around 250 million people aged 50 years or more.

Category

Devices: Gastroenterology

Point of development of key or lead technology

Pre-clinical

OPPORTUNITIES SOUGHT

Endogene seeks strategic investment partners to take its lead technology through to market ready. It also seeks prospective partners, licensees or acquirers for its other technologies. Endogene sees the quantum value uplift for parties joining at this stage, with realisation within a 2-3 years' timeframe through a combination of IPO and/or trade sales/partnering.