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London Health Conference 2009

Innovations in Healthcare Design and Provision to Realise Results



Imperial College AHSC – the difference



- A national centre for research, education and patient care, serving a local population of three million in West London at five hospitals
- One of the lowest Hospital Standardised Mortality Ratios in UK
- One of the largest NHS Trusts in England with over a million patient episodes a year and annual turnover of over c.£850 million
- Ranked 3rd in Europe and 11th internationally for Life Sciences and Bio-medicine for quality of research
- Research spend 2008/2009 £162m, **up 12%**

2009/10 Translational research achievements

- Largest community-based preventative cardiology programme in the country
- New test to diagnose TB
- World Health Organisation's surgical safety checklist
- Robotic technology to treat complex aneurysms



Translational Research: Shoulder Surgery, Implants, Basic Science

Soft tissue repair
Concept



IP Protection



Laboratory



Testing



Clinical Tool

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

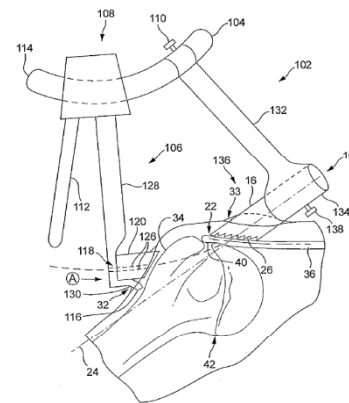
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PCT

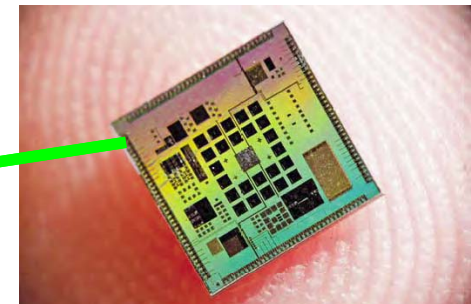
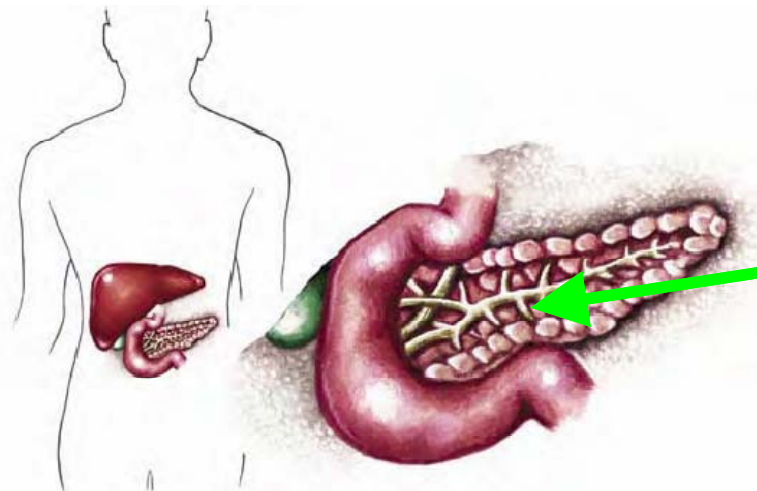
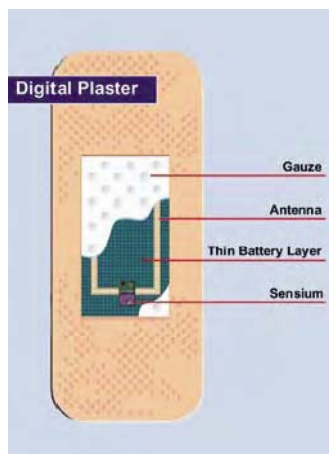
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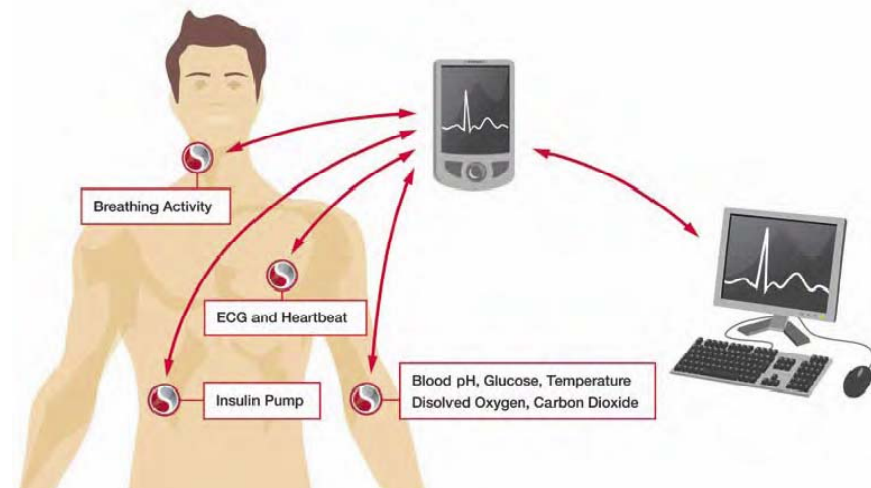
Imperial IBE – Next Generation Medical Devices

- A plaster that can continuously monitor your heart rate, body temperature, respiration and other vital signs.
- For diabetics, a silicon pancreatic data cell implanted under the skin that continuously monitors blood sugar and can warn the user of impending hypoglycaemia or hyperglycaemia.



Patient Tracker Technology

- Handheld devices used to capture real time data on the patient's recovery
- Real time monitoring and alerting systems
- Enables staff to immediately act to address an issue
- Can monitor and analyse patient statistics from remote locations



University Tech Transfer Companies

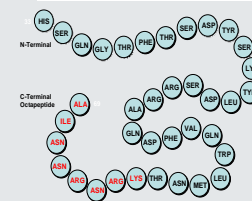
- Imperial Innovations the **first** majority university-owned technology transfer company to float in the UK
- **£204M** Market value, 2008/09
- Profit of £5.3 million, 2008/09



*Therapeutics for cat,
dust-mite, grass allergy*



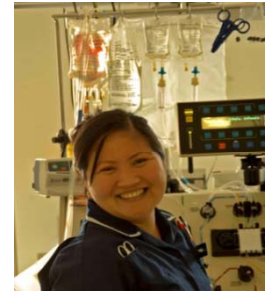
Developing stents and grafts



Peptides to reduce obesity

Population Health Laboratory – The Potential

- Building on Imperial College's strength as the world leading centre for Epidemiology, Public Health and Primary Care – we have pioneered for London a Population Health Laboratory to:
- Take advantage of routine clinical practice to collect individual informed consent, biological samples and clinical data
- Allow access to high level clinical data to enable sophisticated diagnosis, treatment, analysis of risk factors, complex patient follow up
- Create large, well curated collections of biosamples linked to individual demographic, lifestyle, clinical and phenotypic data



AHSC progress - Research

Establishment of the Joint Research Office (JRO)

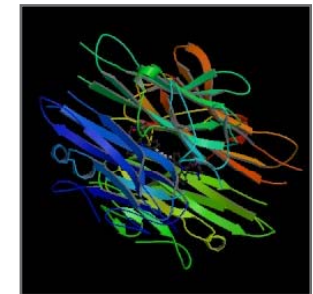
Recruitment of patients into clinical trials

Trust-wide “assent” form:

- Database of patients who have assented to be contacted for research
- Linked to diagnosis
- Offered to all patients at point of contact (OPD, IP, A&E)

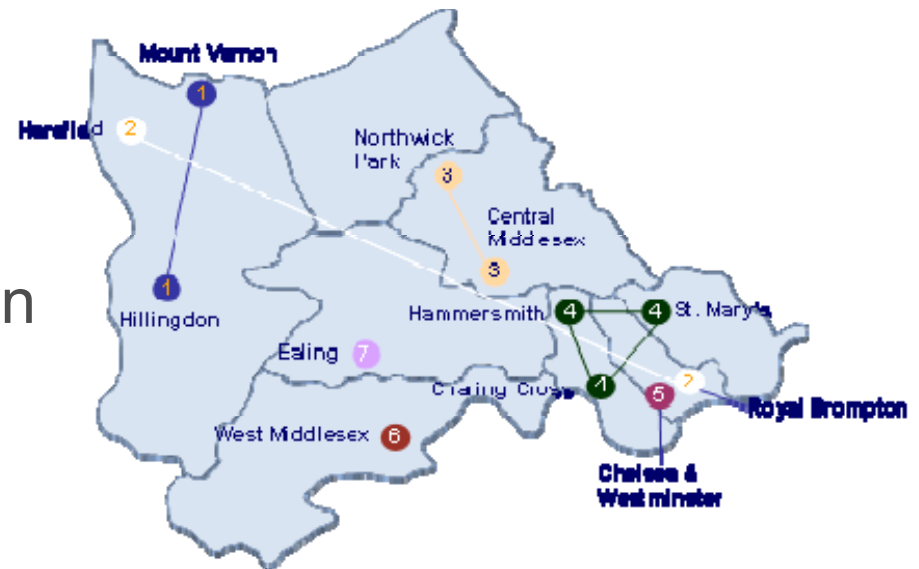
Clinical databases:

- Link existing disease specific databases
- Integrate into AHSC IT strategy



Dissemination and application into the community

- Preventative and Interventional Public Health
- Networks with local providers
- Health Innovation and Education Clusters
- Biomedical Research Units
- Collaborations for Leadership in Applied Health Research and Care





ANY QUESTIONS?

