

## Gothenburg U-GOT KIES Centre

### 11th Annual Workshop on Medical Innovation and Healthcare (WOMI) December $11^{\text{th}} - 13^{\text{th}}$ , 2022 Gothenburg, Sweden

Developed in cooperation with AstraZeneca

Supported by: ✤ AstraZeneca

Handelshögskolans Partnerprogram

Swedish Research Council, Professor McKelvey's Distinguished Professor Programme

'Knowledge-intensive Entrepreneurial Ecosystems'

University of Gothenburg U-GOT KIES Centre

Workshop organized by Maureen McKelvey, Ethan Gifford & Madeleine Englund

Note! The Gothenburg U-GOT KIES centre is also co-organizing the Swedish Schumpeter Lecture, on Wednesday 14<sup>th</sup> December, 10:00 – 11:30 am, with Entreprenörskapsforum. The lecture will be given by Stan Metcalfe, professor emeritus, who is Honorary Doctor 2018 of the School of Business, Economics and Law.

#### About WOMI:

For a decade, we have organized small workshops across Europe to debate current topics in the economic and social aspects of medical innovation and meet across organizational boundaries. We study medical innovation in the context of healthcare organizations, medical devices, pharmaceutical industry and broader fields of medicine and life-sciences.

See more at: <u>https://www.gu.se/handelshogskolan/ekonomi-samhalle/womi-community-workshops-on-medical-innovation-and-healthcare</u>

All abstracts and presentations will be uploaded on Dropbox (only available for WOMI participants): https://www.dropbox.com/scl/fo/20g6km2qnenndg3klz0ta/h?dl=0&rlkey=xgivf2t88hyftts0b82ljbi9u

## Sunday 11<sup>th</sup> December at Liseberg

7:30 pm to 10 pm Dinner at Liseberg – only for registrations before 28<sup>th</sup> October Swedish Christmas smörgåsbord ('julbord') at Liseberg, the tivoli. You can walk around in the park before dinner. Liseberg has Christmas markets and about 5 million LED lights.

19:30 Dinner booked at Restaurant 1923, Julbord

You are welcome to enter Liseberg at the time of your convenience. The park opens at 12:00. You must use the main (north) entrance and at your arrival you need to say that you are there for Christmas dinner at the restaurant called 1923. You should state the booking number: 296940.

## Monday 12<sup>th</sup> December at AstraZeneca

NOTE! You can only join the workshop at 8:30 or at 12:00, due to AZ policy

08:30 Latest arrival at AstraZeneca, Pepparedsleden 1, Mölndal for registration.

08:45 Group photography

09:00 – 10:00 Amazing Journey: History of AstraZeneca. We will divide in two groups and do the tour in parallel

Coffee break

#### 10:15 – 10:30 Opening of workshop by Maureen McKelvey & Anna Sandström

10:30 – 11:00 Paper presentation

Theme: Innovation in university-industry collaborations Chair: Maureen McKelvey

10:30 - 11:00 Azagra-Caro and Mas Tur: University collaborations in cancer research

#### 11:05 - 12:05 Panel 1

*Reusing Drug Compounds - Scientific and Managerial Perspectives* This panel discussion enters the debate about repurposing technology and drug compounds, from scientific and managerial perspectives. The panel will explore open questions and research opportunities related to the reuse of drug compounds in different disease contexts. See appendix & dropbox for more information Panel:

- Dr Bastian Rake (Maynooth University & Affiliated Researcher at U-GOT KIES centre), Chairperson / moderator
- Professor James Barlow (Imperial College London)
- Dr Annika Jenmalm Jensen, Infrastructure director, SciLifeLab (Karolinska Institute)
- Dr Thomas Lundbäck, Senior Director, Mechanistic and Structural Biology (AstraZeneca)

#### Lunch

#### 13:20 – 14:20 Panel 2

# Benefits and Spillovers in Academic Alliances and Research Collaboration between Pharmaceutical firms and Universities

An interesting issue to both companies and universities is whether, how and when, different types of university-industry interactions do – or do not – benefit both partners. What types of different interactions exist? How do companies achieve fruitful alliances for their pipelines? What works or does not? See appendix & dropbox for more information

Panel:

- Professor Isabel Bodas Freitas (GEM Grenoble Ecole de Management & Broman scholar guest researcher at U-GOT KIES centre), Chairperson / moderator
- Professor Magnus Gulbrandsen (University of Oslo)
- Dr Lena Lewin, Scientific Coordinator (Karolinska Institute)
- Dr Susanna Myhre, Director, Academic Alliances (AstraZeneca)
- Professor Mark Flynn (Global Edge Medtech Consulting and University of Newcastle)

#### Short break

#### 14:30 – 16:15 Paper presentations (incl. break)

Theme: Innovation in university-industry collaborations Chair: Jarno Hoekman

14:30 – 15:00 Mina and Iori: Government funding and the division of innovative labour in the development of medical robotics

15:00 – 15:30 McKelvey & Saemundsson: Making University-Industry-Hospital Collaboration work in the long-term: Pairing Engineering and Medicine in Biomedical Engineering at Chalmers University of Technology, 1948 to 2018

Coffee break

15:45–16:15 Vie and Gulbrandsen: When the researcher and the user is the same person

End of workshop day 1

## Tuesday 13th December at Ågrenska villan

08:30 – 08:40 Reflections from day 1 and Welcome to day 2 Jointly by Mark Flynn & Rögnvaldur Saemundsson

	Parallel session 1 (only IRL)	Parallel session 2 (hybrid format)
	Room: Mölnlyckerummet (upstairs)	Room: Stenasalen (downstairs)
	Theme: Adapting to change and crisis	Link: https://gu-se.zoom.us/s/61986904437
	Chair: Elena Mas Tur	Theme: Digitalisation and medical innovation
		Chair: Aldo Genua
08:45 - 9:15	Dodgson: Innovation ecosystems and research in times of crisis	Asanov, Asanov, and Buenstorf: Exploring the potential of digital technology in providing mental health services: evidence on take-up and effectiveness of an online self-help program for Ukrainian refugees
09:15 - 09:45	Jansson: "Patients in the driver's seat" is a multimethod partnership programme on patient-driven Innovations	Irgang, Barth, and Holmén: Digital transition and the role of complementary capabilities in new product-service systems development in medtech firms (work in progress)
09:45 - 10:15	Hoekman and Boon: Navigating the regulatory landscape: Changing roles of SMEs in pharmaceutical development and regulation	Bone, Bratan, Fisher, Heyen, and Kaufman: Digital transformation in healthcare systems: the adoption of telemedicine in Germany, France and the UK

08:45 – 10:15 Parallel paper sessions

10:15 Coffee Break, including sandwich

10:30-11:30 Parallel paper sessions cont'd

	Parallel session 1 (only IRL)	Parallel session 2 (hybrid format)
	Room: Mölnlyckerummet (upstairs)	Room: Stenasalen (downstairs)
	Theme: Adapting to change and crisis	Link: https://gu-se.zoom.us/s/61986904437
	Chair: Mark Dodgson	Theme: Digitalisation and medical innovation
		Chair: Nathalie Lazaric
10:30 - 11:00	Xu, Gagliardi, and Ramlogan <i>Leadership</i> Shifting in Innovation Ecosystems: Lessons from Radical Innovation Cases	Johansson, Laurell, Hidefjäll, and Barlow: Institutional Logics in Commercialisation and Implementation of Digital Health - Coping with Misalignments
11:00 - 11:30	Hanisch and Rake: <i>The Specialist's</i> Dilemma: How Specialization Inhibits Reactivity and Innovation Responsiveness in a Crisis	Gebel, Miozzo, and Sosa: Systematically Managing Complex Innovation: The Application of Digital Twins for Drug Discovery

#### 11:40 - 12:20

Parallel session 1 (only IRL)	Parallel session 2 (only IRL)
Room: Mölnlyckerummet (upstairs)	Room: Stenasalen (downstairs)
Chair: Ethan Gifford	Chair: Rögnvaldur Saemundsson
Stan Metcalfe: Professor emeritus & Honorary Doctor at University of Gothenburg: Innovation, Economic Evolution and the Competitive Process	<ul> <li>11:40-12:10 Broström: Attitudes to failure among life science PhD students</li> <li>12:10 Wrap up by Saemundsson &amp; McKelvey</li> </ul>
Note: A lecture for the graduate students & postdocs working on innovation and economic problems	Upcoming WOMI conferences in 2023 and 2024 Special Issue journal & sessions updates

12:30 – 13:30 Lunch at Ågrenska villan and end of workshop

## **Practicalities**

No conference fees.

You organize & pay your own travel & accommodation. Gothenburg has many hotels to choose from. Two places where workshop participants are staying are at 'Flora Hotel' which is a more boutique hotel downtown Gothenburg and 'Elite Park Avenue Hotel', which is central and relatively close to Ågrenska Villan.

#### News and social media

U-GOT KIES will post about this event on the LinkedIn page: <u>https://www.linkedin.com/company/centre-on-knowledge-intensive-innovation-</u> <u>ecosystems/?viewAsMember=true</u> If you want to share something about the event on your personal page, please do so! Please tag Gothenburg Centre on knowledge-intensive innovation ecosystems.

There will also be a news item on our webpage: https://www.gu.se/en/u-gotkies

#### **Photography**

We will have a designated photographer on Monday 12<sup>th</sup>. Pictures will be used for the purposes stated above. I.e., news items on the University of Gothenburg webpage, posts on social media, etc. If you DO NOT want to be in any photo, please let Kajsa Folmeus Strandberg know in advance by sending an email: kajsa.strandberg@gu.se (preferable), or upon arrival at Astra Zeneca.

#### Papers and paper presentations

Please send your papers and presentation ppts by Monday 5th Dec to: madeleine.englund@gu.se

The papers will be available via Dropbox, as they arrive. Only participants of the workshop will have access to the papers.

Each paper has a total of 30 minutes. Max 10 minutes for presentation.

#### Location

NOTE! The workshop will be held at different locations on different days. Liseberg amusement park (dinner, Sunday), Astra Zeneca (Monday) & at Ågrenska Villan or digitally (Tuesday).

#### Getting to Liseberg:

Several trams and buses stop at <u>Korsvägen</u>, which is within a very short walking distance of the main entrance. If you are staying at a hotel located at Avenyn, Liseberg is within walking distance.

#### Getting to AstraZeneca:

AstraZeneca site is a bit outside of Gothenburg city center. Bus 25 leaves from <u>Pilgatan</u> approximately every 10 minutes and it takes 25 minutes to AstraZeneca. Graduate students will meet you at Handelshögskolans main building, <u>Vasagatan 1</u> at 07:45 on Monday morning to jointly take the bus that leaves 07:56. However, if you are staying at Flora hotel, the bus stops just outside so it might be more convenient for you to get the bus from there rather than walking up to Handelshögskolan. NOTE! you need to buy your ticket before getting on the bus. See instructions below.

#### Getting to Ågrenska Villan:

A historical house, owned by the university, downtown Gothenburg (<u>About Ågren Residence</u>). Ågrenska Villan is located at <u>Högåsplatsen 2</u> and is within walking distance of the city center. Nearest bus/tram stop is <u>Kapellplatsen</u>.

Zoom link for those participating digitally: <u>https://gu-se.zoom.us/s/61986904437</u>

#### **Public transportation in Gothenburg**

We recommend downloading the public transportation app To Go:

Google Play: https://play.google.com/store/apps/details?id=com.vaesttrafik.vaesttrafik&hl=sv&gl=US

App Store: https://apps.apple.com/se/app/v%C3%A4sttrafik-to-go/id424903083

In the app it is possible to plan your route and buy tickets. Zone A will be sufficient for all journeys in relation to WOMI. NOTE! You cannot buy tickets on Gothenburg buses.

#### Some additional information about visiting AstraZeneca

- You need to keep your badge (received upon arrival) visible on you at all times
- You are not allowed to smoke anywhere on the premises. Please talk to an AZ representative if you need to go out for a smoke
- You cannot walk around outside the conference area without an AZ employee

# **Appendix 1: More information about the panels at AstraZeneca**

#### 11:05-12:05 Panel 1: Reusing Drug Compounds - Scientific and Managerial Perspectives

The traditional innovation model for new pharmaceuticals has become under pressure due to its high cost and long development times (DiMasi et al., 2016). Recently, the COVID-19 pandemic has demonstrated that the development of entirely new drugs seems to be an inappropriate response to the pressing health needs caused by a pandemic. The repurposing of existing drugs - i.e., reusing an existing drug or compound in a different disease context (Neuberger et al., 2019; Toney et al., 2009) 2009) – may allow for a rapid and cost-effective response. The opportunities of repurposing for speeding up the development process while simultaneously reducing the associated costs and regulatory hurdles (Breckenridge and Jacob, 2019; Polamreddy and Gattu, 2019) have been discussed particularly within the bio-medical literature. At the same time, open questions remain regarding the scientific potential and the commercial viability of repurposing projects (Pushpakom et al., 2019).

Against this background, the proposed panel discussion aims to shed light on repurposing from scientific and managerial perspectives. In addition, the panel discussion aims to explore open questions and research opportunities related to the reuse of drug compounds in different disease contexts.

Four panelists will participate in the discussion. Two panelists are social scientist researchers, who come from the WOMI community with a background in researching the management of medical innovations; one participant from industry (AstraZeneca), and one participant from bio- medical sciences (Karolinska Institutet). Dr Rake will moderate the panel discussion and prepare questions for the discussion.

#### References

- Breckenridge, A., Jacob, R., 2019. Overcoming the legal and regulatory barriers to drug repurposing. Nature Reviews Drug Discovery 18 (1), 1–2. doi:10.1038/nrd.2018.92.
- DiMasi, J.A., Grabowski, H.G., Hansen, R.W., 2016. Innovation in the pharmaceutical industry: New estimates of R&D costs. Journal of Health Economics 47, 20–33. doi:10.1016/j.jhealeco.2016.01.012.
- Neuberger, A., Oraiopoulos, N., Drakeman, D.L., 2019. Renovation as innovation: is repurposing the future of drug discovery research? Drug Discovery Today 24 (1), 1–3. doi:10.1016/j.drudis.2018.06.012.
- Polamreddy, P., Gattu, N., 2019. The drug repurposing landscape from 2012 to 2017: evolution, challenges, and possible solutions. Drug Discovery Today 24 (3), 789–795. doi:10.1016/j.drudis.2018.11.022.
- Pushpakom, S., Iorio, F., Eyers, P.A., Escott, K.J., Hopper, S., Wells, A., Doig, A., Guilliams, T., Latimer, J., McNamee, C., Norris, A., Sanseau, P., Cavalla, D., Pirmohamed, M., 2019. Drug repurposing: progress, challenges and recommendations. Nature Reviews Drug Discovery 18 (1), 41– 58. doi:10.1038/nrd.2018.168.
- Toney, J.H., Fasick, J.I., Singh, S., Beyrer, C., Sullivan, D.J., Sills, J., 2009. Purposeful Learning with Drug Repurposing. Science 325 (5946), 1339. doi:10.1126/science.325 1339.

# 13:20-14:20 Panel 2: Benefits and Spillover in Academic Alliances and Research Collaboration between Pharmaceutical firms and Universities

Evidence on the average benefits of university-industry collaboration is compelling. Collaboration with university improves firms' patenting activity and product innovation probability (Belderbos et al., 2004; De Fuentes and Dutrénit, 2012; George et al., 2002; Wirsich et al., 2016). Prior evidence also shows that the extent of firms' benefits from university collaboration are associated with the firms' motivation to join the collaboration and channels used for the exchange (Mohr and Spekman, 1994, De Fuentes and Dutrénit, 2012), the extent to which the partner-firm engages in exploration activities (Melnychuk et al., 2021), the proximity of the goals of the collaborative research to the firm's current activities, and with the learning and the boundary spanner efforts involved (Caloghirou et al., 2003).

However, to date, the literature has provided few insights on the conditions for both partners, university and firms, to benefit from the collaboration. In addition, it has mostly neglected that university-industry collaborations may also benefit non-partner firms, i.e. firms not directly involved on the specific university-industry collaboration (Ahrweiler et al., 2011). The existence of the technological spillovers from collaboration with universities which may or may not influence the possibility of partners-firm to capture value.

This panel is an attempt to address this issue by discussing the characteristics of collaborations in which the both partners' benefits match their original expectations, as well as collaborations in which only one partner benefit as it expected from the collaborative project. In particular, it will be discussed if specific type of partner's involvement is associated with particular type of benefits (Lavie et al., 2007). In addition, the panel will explore how collaborations that allow the partner-firm to capture value and advance its new product development activities differ from those collaboration whose collaboration outcomes are instead mostly used by other non-partner firms. Isabel Bodas Freitas will moderate the panel discussion and prepare questions for the discussion.

#### References

- Ahrweiler, P., Pyka, A., & Gilbert, N. (2011). A new model for university-industry links in knowledgebased economies. Journal of Product Innovation Management, 28(2), 218-235.
- Belderbos, R., M. Carree, and B. Lokshin. 2004. Cooperative R&D and firm performance. Research Policy 33 (10): 1477–92.
- Caloghirou, Y., Hondroyiannis, G. & Vonortas & N.S. (2003). The Performance of Research Partnerships. Managerial and Decision Economics, 24, 85-99.
- De Fuentes, C., Dutrénit, G., 2012. Best channels of academia-industry interaction for long-term benefit. Research Policy 41, 1666–1682.
- George, G., Zahra, S. A., & Wood Jr, D. R. (2002). The effects of business–university alliances on innovative output and financial performance: a study of publicly traded biotechnology companies. Journal of business Venturing, 17(6), 577-609.
- Lavie, D., Lechner, C., & Singh, H. (2007). The performance implications of timing of entry and involvement in multipartner alliances. Academy of Management Journal, 50(3), 578–604
- Melnychuk, T., Schultz, C., & Wirsich, A. (2021). The effects of university–industry collaboration in preclinical research on pharmaceutical firms' R&D performance: Absorptive capacity's role. Journal of Product Innovation Management.
- Mohr, J., & Spekman, R. (1994). Characteristics of Partnership Success: Partnership Attributes, Communication Behavior, and Conflict Resolution Techniques. Strategic Management Journal, 15(2), 135-152
- Wirsich, A., Kock, A., Strumann, C., & Schultz, C. (2016). Effects of university–industry collaboration on technological newness of firms. Journal of Product Innovation Management, 33(6), 708-725.

## **Appendix 2: More information about Metcalfe Lecture**

#### A lecture for the graduate students & postdocs working on innovation and economic problems

#### Innovation, Economic Evolution and the Competitive Process

Innovation is a form of economic differentiation and, in evolutionary thinking, differentiation drives change. How is this so? Does economic evolution have a direction? Can economic evolution proceed indefinitely without innovation? This lecture is a brief introduction to such questions, exploring the population dynamics of the competitive process and building on the work of Schumpeter, Marshall and Nelson and Winter. It explores some simple evolutionary ideas on innovation dependent market processes and the tools that can be developed to explore them. Among the issues covered are: the statistical nature of evolution, the link between differential profits and the differential growth of firms, and the role that capital markets may play in influencing the direction of evolution. In short, it is a way of exploring the nature of restless capitalism.

#### Additional event: Wed 14<sup>th</sup> Dec, 10 – 11:30, Room B44, Handelshögskolan, Vasagatan 1

Swedish Schumpeter Lecture by Honorary Doctor Stan Metcalfe on Knowledge and Economic Transformation. Organised together with Entreprenörskapsforum

Registration required - seating is limited to 35 people. Streamed and recorded

Sign up here for attending in person (NOTE! Limited seats): https://link.gu.se/Events/6426/Apply

Sign up here for attending digitally: https://www.lyyti.fi/reg/Stan Metcalfe On Knowledge and Economic Transformation 4540