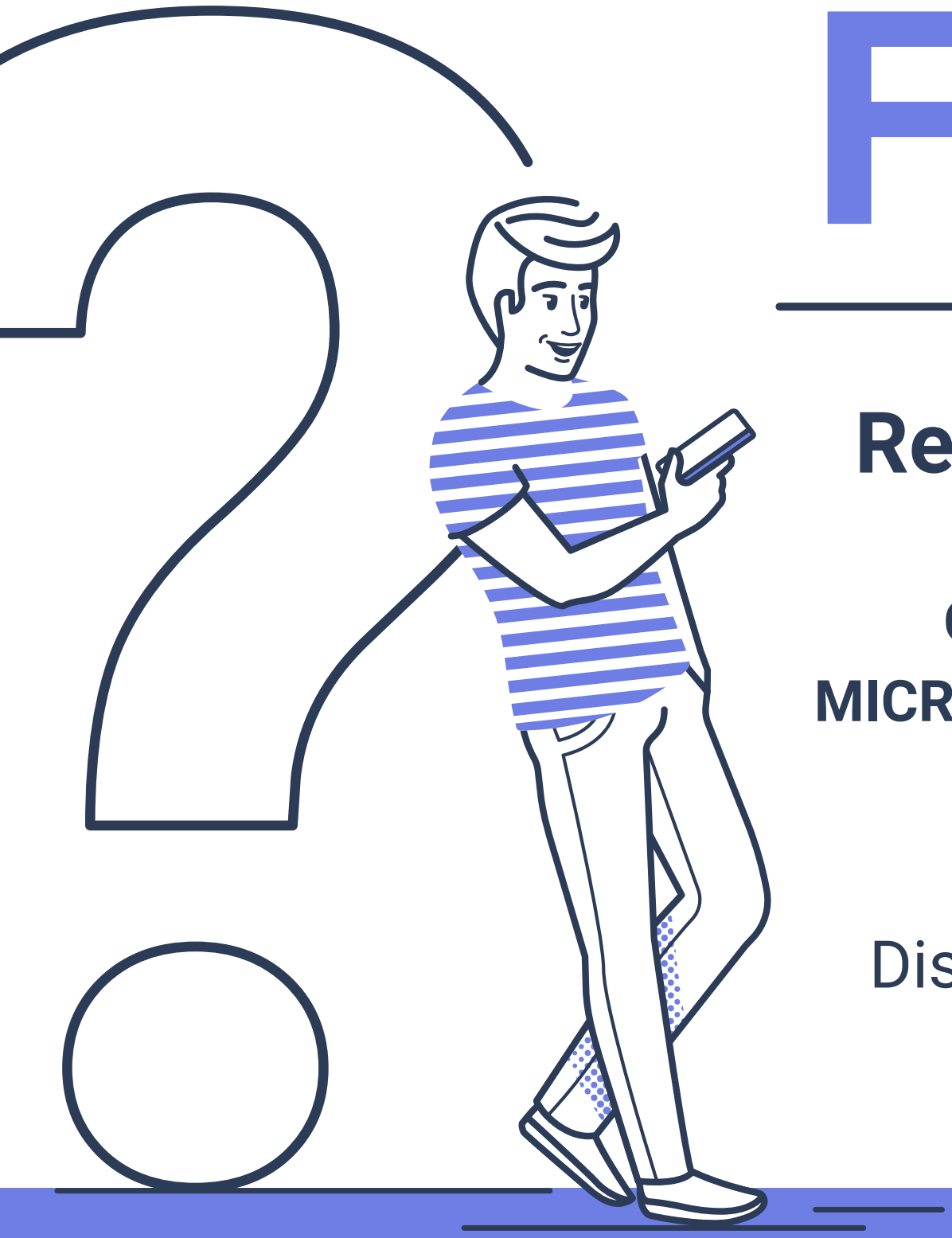

FAQ

ReleGO™ & REVex™

CURIOUS ABOUT OUR MICROFLUIDING SKIN-ON-CHIP PLATFORM?

Discover Popular Burning Questions!

www.medelink.ca

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Skin Research Solution

Q1

- **What is Organ-On-Chip?**

Due to Limitations on 2D cultures and 3D organ models, other new technologies such as microfabrication for biological purposes have been created. This approach directed to the development of the so-called organs-on-chips. These are microfluidic devices with micron size chambers that allow the dynamic culture of cells inside, in order to simulate or mimic the physiology of a tissue or organ. It is possible to apply various physical or chemical stimuli on the tissue inside the chip and simulate the body environment.

The possibility of applying different physical or chemical stimuli to the tissue inside the chip might help with the recreation of its physiology in a more accurate manner than that of a static and traditional 3D culture, having a better control of the cell microenvironment.

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Q2

- **What is ReleGo & REVex 4D Organ-on-chip?**

It’s a novel model to drive productivity up and cost down, while more importantly moving away from cruel and animal-based testing and working with ex-vivo human tissue explants or in vitro tissue engineered models.. ReleGO™ is fully automated and easy-to-use platform, mimicking in-vivo-like conditions for your safety, efficacy, and permeation studies.

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Q3

- **What makes ReleGO™ & REVex™ unique for in vitro studies?**

ReleGO™ & REVex™ ,Skin-on-chip platform, stands out due to their ability to mimic dynamic & continuous blood flow, allowing for the natural expression of significant proteins and genes as well as offering valuable insights into chronological ageing and wound healing under standardized conditions.

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Q4

- **Besides skin explants, what other types of skin tissues can be used on ReleGO™ and REVex chip?**

IWhat makes ReleGO™ & REVex™ chip so easy to adopt is that they are fully compatible with a wide range of skin simulants and skin tissue models! ReleGO™ & REVex™ have been tested to be fully compatible with real skin explants, commercially available organotypic skin cultures, animal skin and synthetic membranes, making the platform easy and convenient for you to adapt to your current project needs.

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Q5

- **Can I use ReleGO™ & REVex™ for other tissues besides skin?**

IReleGO™ & REVex™ are compatible with a range of excised and reconstructed tissues, including but not limited to oral mucosa, nasal mucosa, vaginal mucosa, liver, lung, and gut tissues. You can confidently explore the potential applications of ReleGO™ and REVex™ for a variety of research areas beyond skin tissue analysis.

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Q6

- **How long can you run an experiment on ReleGO™?**

IThe experimental duration can vary based on multiple factors such as the type of tissue used, the experimental plan, the design of experiment, and the particular research inquiry being pursued. On ReleGO™, you can easily program the test period to range **from several hours to an extended continuous duration of 58 days.**

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Q7

- **For how long can skin explants & other tissues be maintained viable on ReleGO™?**

IState-of-the-art ReleGO™ and our microfluidic chip, REVex™, create a dynamic and continuous flow of media, thanks to which the tissues are kept fresh for up to two times longer in duration than traditional methods. This means you can achieve better flexibility, improved reproducibility, more accurate results for your ex vivo and in vitro experiments.

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Q8

- **What are the minimum and maximum ReleGO™ flow rates? How can I choose flow rates?**

IThe minimum and maximum allowable flow rates of the ReleGO™ system are 0.5 to 120 uL/min. However, in practice for ex vivo and in vitro studies, a flow rate of 1-10 uL/min is more commonly used. As an example, we'd recommend a flow rate of 4 uL/min for permeation studies on the ReleGO™.You will also be delighted to know that ReleGO™ has been programmed to alert users if too high a flow rate is being selected for your chosen experimental duration, time intervals, and type of collection plate. With this, users are free to explore various flow rate settings to customise a 4D ex vivo and in vitro experimental design.

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Q9

- **Is the temperature controlled by the system continuously?**

Yes, the system keeps the temperature at 37°C similar to body temperature.

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Q10

- **What is the size of tissue explants or simulants on REVex?**

REVex™ chip in the ReleGO™ system lets you use miniature-sized tissue samples **(0.5 Cm2)** for in vitro and ex vivo studies. This is especially handy when dealing with rare or hard-to-find tissues, so you can make the most of your available resources. It also allows you to use the same donor tissue per experiment, which makes your results more consistent and reproducible.

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Q11

- **Is the temperature controlled by the system continuously?**

Yes, the system keeps the temperature at 37°C similar to body temperature.

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Q12

- **How many samples can be loaded on ReleGO™ to run simultaneously?**

Up to 12 human skin biopsies, synthetic membranes or 2D/3D organotypic cultures can be loaded in REVex™ chips and run simultaneously on ReleGO™.

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Q13

- **Does ReleGO™ reduces manpower and R&D expensess?**

Absolutely. ReleGO™ offers a more efficient and ethical way to reach the market faster while lowering its customers' R&D expenses (a five-fold reduction in biomaterial consumption, and a 10-fold reduction in specialized manpower), but also highly realistic 4D tissue models that accelerate the product testing and validation processes.

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Q14

- **What is the range of In-vitro tests are possible with ReleGO™ and REVex™?**

Both ReleGO™ and REVex™ are engineered with the highest precision to take on a diverse range of in vitro and ex vivo tests:

✓**Product Efficacy tests for marketing & label claims**
Anti-Aging
Anti-pigmentation
Integrity of skin barrier
Oxidative Stress
Anti-pollution
Wound healing

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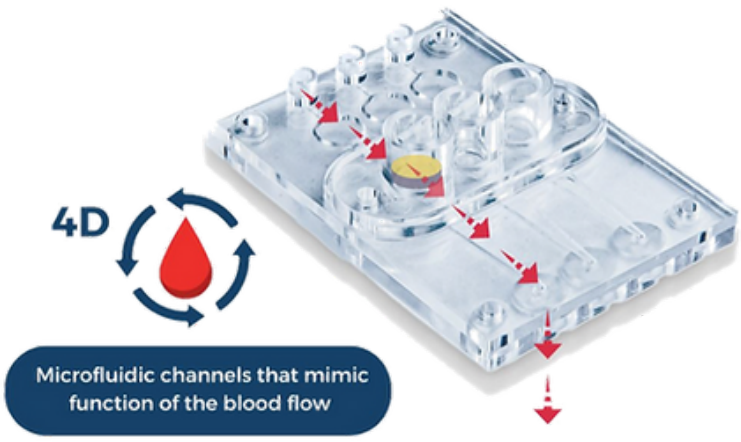
Q14

- **What is the range of In-vitro tests are possible with ReleGO™ and REVex™? (Continue)**

✓ **Permeation studies**
Transdermal delivery studies
In Vitro Skin Absorption (OECD 428)
In Vitro Release Testing (IVRT)

✓ Safety test for ingredients and product formulation
Irritation
Corrosion
Toxicity & Phototoxicity



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STILL MORE QUESTIONS OR LOOKINF FOR A DEMO?

Contact us today

info@medelink.ca