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BioTech

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Appointment of Board of Directors for the Medical Biotechnology Park

The Medical Biotechnology Park (MBP), the innovation hub of King Abdullah International Medical Research Center (KAIMRC), provides new and emerging technology and compatible businesses with an environment that would support their start-up phase and increase their likelihood of success. The MBP includes facility space, flexible leases, shared use of common office equipment, direct business assistance and guidance, mentoring, networking to capital, and other technical resources. Recently a major step forward has been achieved through the appointment of the Board of Directors for the Medical Biotechnology Park. The Board of Directors held its first meeting on May 2018 ,28. This inaugural meeting has given the official launch of the biotechnology park where the goals, organizational structure, governance and initial projects have been discussed as well as the way forward.

Now, the Medical Biotechnology Park is ready to provide an enabling environment for local and International companies, new and established, fast-growing start-ups to grow and prosper and to effectively contribute to aligning with the National Vision 2030 where knowledge based economy plays a crucial role.

Transforming a Research Idea into a Business Opportunity In the Medical Biotechnology and Biopharmaceutical Sector

This was one day workshop as part of the outreach activities of KAIMRC medical biotechnology park . During the workshop sessions, which was attended by over 100 participants, the moderators analyzed the strengths and weaknesses of the relevant elements of the participants' business plans and provided detailed feedback on how to improve the plan, with a focus on developing a business plan that can be presented to investors. Workshop sessions included multiple mini-presentations, exercises, discussions and idea sharing to enable participants to transform their business ideas into an actionable business plan. The feed back received from the audience was so positive that we will plan to organize similar workshops in the near future.



BOOSTING ANTI- CANCER DRUG EFFICACY WITH A SHIELD

A nanotechnology-based capsule could enhance the delivery of anticancer drugs to their target.

Biomolecular scientist Majed Halawani and his colleague Moayad Alhariri have devised a delivery system using nano-sized pockets for doxorubicin, a potent anti-cancer drug with severe cardiovascular side-effects. "This system enhances doxorubicin's activity and reduces its adverse side effects," says Halawani.

In most nanoparticle formulations, a shell encloses the drug and protects it from the host environment until the target site is reached. These formulations partly enhance drug activity but their efficacy only depends on the drug molecule. "Our formulation itself has therapeutic capabilities because it also comprises anti-oxidative omega3- fatty acids and anti-cancer polysaccharides called glucans," explains Halawani.

The new system substantially decreased the viability of various cancer cell lines, such as lung carcinoma epithelial cells and

colorectal adenocarcinoma cells, compared to free doxorubicin. This is expected to ease doxorubicin dosage requirements and, therefore, cardiovascular toxicity.

"I am very excited with these results and feel we can take this formulation to the next level," says Halawani. The researchers are planning to examine many parameters, including formulation stability and cardiovascular toxicity, before evaluating therapeutic value.

As further results show promises, the medical biotechnology park is ready to host these innovative projects for further development and commercialization.



State of the Art Infrastructure Capabilities

The Medical Biotechnology Park has added recently a new clean room in its premises as part of ensuring of high international standards for manufacturing of life sciences and biomedical products.

The clean room which is Class 10.000, will provide opportunities to manufacture in house a range of biomedical research

reagents including cell and tissue culture media and other reagents to support a wide range of biomedical and clinical research.

These products manufactured at the Medical Biotechnology Park based on

the international standards will be commercialized locally and regionally.

