**WEBSITE TEMPLATE**

**1. RESEARCH THEME/s; PRP; GI:**

**Research Themes**

Nanomedicine and Biotherapeutics

**PRP**

Material and Advanced Technologies for Healthcare

**GI**

Global Health

**2. PI DETAILS (Name, Pure Link, Twitter Handle & Photo)**

Dr Taher Hatahet



**3. Research focus (80 words max)**

Dr Hatahet joined Queen’s University in May 2018 from University of Rennes 1, where he was a Teaching and Research Fellow at the faculty of pharmacy.

His research is focussed on developing novel nanomaterials for delivering a broad range of therapeutic agents, and to fabricate multifunctional nanoparticles to target cancer and other diseases. He is also in interested in improving the physiochemical properties of poorly water-soluble drugs to enhance bioavailability with nanotechnology formulations like nanocrystals. His long-term research career is to facilitate the translation of nanoparticle-based systems from the lab to the clinic using scalable technologies like milling and high-pressure homogenization. Current research themes are concerned with:

(1) Lipid based nano-systems for the targeted drug delivery to skin tissue

(2) Nanocrystals for poorly water-soluble drugs

(3) Novel topical therapies for skin cancers and skin inflammatory diseases.

**4. Research opportunities** 40 words max  
  
Research projects typically involve

* Poorly water-soluble and BCS class 2 drug delivery using nanotechnology
* Biopharmaceuticals, peptides, and large molecules drug delivery using nanotechnology,
* Physicochemical characterization of formulations,
* *in vitro* cellular testing of drugs and formulations (safety, activity, and proof of concept)
* With potential collaborations on *in vivo* conceptualization and synthesis of ligands for drug targeting.

We collaborate widely with research groups in academia, industry, and research institutes.

**5. Research students**

Name: Siyang Wu

PhD title: Development of nano photothermal therapy for skin cancer

Years of Study: 3  
Country: PR China

Name: Hamoud Alotaibi

PhD title: Engineering Biodegradable Photothermal Nanoparticles for Cancer Therapy

Years of Study: 3  
Country: PR China

Name: Minao Zhang

PhD title: Molecularly Imprinted Nanoparticles for Cancer Immunotherapy

Years of Study: 1  
Country: PR China

**6. Alumni - where are they now? (3 Max)**

N/A

**7. Public Outreach/ other achievements** (media links; DNA innovation links etc; other press)

**8. Key words**

Nanotechnology, nanocrystals, liposomes, lipid nanocapsules, antioxidants, skin, skin cancer, targeted drug delivery.