# Seeking Innovative R&D Solutions Procter & Gamble, R&D



### About Innovation @ P&G

Since P&G's founding in 1837, innovation has been our lifeblood. From the world's first fluoride toothpaste, to the world's first Profit Sharing program, innovation is how we're able to improve more lives in more meaningful ways—now and for generations to come. At the heart of P&G's innovation pipeline are the nearly 8,000 employees, 1,000 of whom are PhDs in a variety of disciplines, in Research & Development. In addition, our Open Innovation program helps connect us to the key players in the Innovation ecosystem (Startups, VCs and Academia) to deliver best in class results for the biggest global FMCG Company; we have established more than 2,000 successful agreements with innovation partners around the world.

### We're seeking breakthrough solutions in the following areas



### Material Science

Creating high value, high performing materials through physical, chemical & biological transformations of commodity nonwovens, fibers, films & chemicals.



### Chemistry

Manipulating chemistry and Delivery Systems to overcome long-standing trade-offs in surface chemistry and physics.



#### Life Science

Providing life-science inspired chemistries that deliver transformative, consumer-noticeable benefits in epithelial health, aging, sensorial and microbial control.



### Smart Products

Creating Personalized Consumer Experiences that drive unprecedented consumer delight and product efficacy through adaptive & responsive products & services.



## Advanced Packaging

Transforming packaging from a container to a source of sustainable competitive advantage at the shelf and throughout usage life cycle.

### **Opportunities**

- Films with enhanced functionality (barrier, controlled dissolution and dispersion, stimuli-responsive)
- Self-folding films; Activated shape/ structure/ function
- On-demand delivery of a wide range of chemistries from films, fibers and particles
- Order of magnitude improvements in film strength/resilience per weight
- Omniphobic surfaces
- Printed magnetics and sensors
- Sustainably sourced or biodegradable materials, recycling technologies or enabling infrastructures
- Materials and processes for affordable additive manufacturing of high volume consumer goods

### **Opportunities**

- Modeling of surface & interfacial phenomena related to cleaning
- Molecular design for new cleaning, protection, or delivery technologies
- Surface and interface analysis
- Novel surface modification actives – self-cleaning and/or soil prevention
- Novel deposition mechanisms – depositing from formulas intended to clean; selective deposition (e.g., hair vs skin, fabric vs machine)
- Active encapsulation

   protection and
   timed or triggered
   release of actives at
   the right time and in
   the right place
- Enzyme technologies & enzyme immobilization

### **Opportunities**

- Epithelial Health optimize skin health and improve resiliency, reduce irritation and inflammation
- Aging prevent, slow, or repair the aging of epithelial tissues, to improve the appearance of aging skin or gingiva, or maintain tissue in a youthful state.
- Sensorial Control –
  modulate the
  sensorial attributes
  (e.g., cooling/
  warming, itch/ pain
  reduction, desirable
  feel, malodor
  blocking) of our
  products to delight
  our consumers and
  provide clear point of
  differentiation.
- Microbial Control –
   Deliver consumer
   meaningful benefits
   by manipulation of our
   microbiome.
- Functional naturals / botanical materials

#### **Opportunities**

- Smart and Precision Delivery Systems
- Embedded Sensors and Intelligence
- Sense low cost microfabricated sensors with the ability to digitize the analog world
- Transform convert binary bits & bytes into actionable insights through embedded or cloud based Artificial Intelligence
- Respond directed delivery of proprietary chemistries and formulations, digital information, knowledge, or other consumer relevant actions.

### **Opportunities**

- Decoration (particularly for premium products -Color/Materials/Finish
- Dosing/ Dispensing
- Easy/ complete Empty
- Sustainability
- Cost effective sampling.
- Affordable effective re-sealable bags/flexible packaging for powder, liquids, gels, unit does)
- e-commerce
- Connected Packaging (IOT)
- Packs for megacity Millennials

