

List of Biotechnological demands from Iran Biotechnology Union

No	Name of Project	Usage	Note	FDA Approve or Trial
1	Tissue Chips	<i>Clinical Trials</i>		yes
2	3D- bio printing tissue		<i>3D Bio printing of living Tissue Human Organ-on-Chips</i>	
3	Multi Organ Tissue		<i>Lab on a chip</i>	
4	Bio mimetic Tissue on a chip	<i>For drug discovery</i>		
5	Biosensor Chip	<i>For functional drug screening of 3D tissue models</i>		
6	Implantable devices	<i>Controlled released drug delivery</i>	<i>Osteoporosis, MS, Contraception</i>	
7	Deep brain stimulation	<i>CNS surgical device</i>	<i>Parkinson's disease</i>	<i>Yes Under a HDE for dystonia</i>
8	Injectable drug delivery system	<i>Regulate how fast the medication is delivered</i>	<i>Reported in Journal of Biomedical nanotechnology Oct 2016 Working on Biogradable version (swallowable) Attacking tumors ,imaging contrast agent, HIV, Infection, Diabetes</i>	<i>Tested in – Vivo, clinical studies began Dec 2016</i>
9	Smart pill	<i>Measure pressure, PH, temperature, GL motility, Colonic transit time</i>	<i>Ingestible capsule</i>	yes
10	Helius	<i>+ Abilify</i>	<i>Proteus digital pill, Schizophrenia, Bipolar, major depression</i>	<i>Yes+ CE marked in Europe</i>
11	Ingestible Capsule	<i>Alerts a pill is taken or missed</i>	<i>Within Tiny microchip and printed antenna</i>	<i>During clinical trial</i>
12	Wireless power medical chip		<i>Wireless transferring energy to medical chips</i>	<i>developing</i>
13	Rehabilitation Nano Chip (Renachip)		<i>DBS with surgical implant</i>	<i>Pre-clinical in animals</i>