# New Iranian Strategic Plan on Addiction Biology Studies Has a Clear Message for Neuroscientists; "Your Help is Seriously Needed"

## 1. Introduction

The fifth Iranian national congress on the biology of addiction was held in 22-24 June 2011 in Tehran University of Medical Sciences with over 100 valuable oral and poster presentations and over 300 participants. One of the main sessions of the congress was devoted to a national strategic planning and Iranian Drug Control Head Quarter (DCHQ) introducing the first national executive road map on research into the biology of addiction. The road map will serve as a part of national strategic plan on addiction studies in Iran. As the main contributors in the preparation of the map, we think neuroscientists have to play a unique role in implementation of this map. We believe that the studies into the biology of addiction can act as a pivotal turning point to promote neuroscience in Iran regarding the governmental focus and public demand on addiction prevention and treatment. In this editorial, we will elucidate a general schema of the map, focusing more on potential opportunities for neuroscientists, and discuss new hopes, needs and challenges that we would be facing in the future to take advantage of addiction related opportunities to study neuroscience in both national and international levels.

## 2. Strategic Map Overview

Drug abuse and addiction are among the most important social problems in today's Iran society affecting over two millions of people in their most active working age and has the third position in the list of public demands which also includes poverty and unemployment. Due to specific characteristics of drug addiction in Iran, a wide range of problem solving-oriented studies is urgently needed in this field at the national levels. New developments in biological studies on addiction as a brain disease provide new hopes for effective prevention and treatment. Unfortunately, the majority of research works based on the biological aspects of addiction are not either well integrated or vigorously in line with their output achievements to meet national needs.

The existence of professional infrastructure in cellular and molecular biology, genetics and neuroscience in Iranian universities and research centers could potentially initiate scientific development in biological aspects of addiction through appropriate management and effective strategies. The national executive map of biological studies on addiction was designed to employ scientific evidences in order to improve the quality of addiction treatment and prevention in national, regional and international levels. It was planed based on the country's academic understructure and research facilities in biological studies. It will also focus on promoting communications between active researchers in addiction studies, attracting young scientists and accomplishing the interdisciplinary cooperation. Ideally, biological research into addiction science would lead to a better understanding of drug abuse initiatives and addiction development, and provide effective strategies for prevention, treatment, harm reduction and rehabilitation in the next step.

Designing applicable methods in order to prevent substance abuse, , taking advantage of biology such as biological understructure of resiliency to drug abuse and addiction, genetic and epigenetic characteristics of susceptible individuals and biologic interventions to immunize vulnerable individuals are the main goals in the map. Quality improvement in current services in substance abuse treatment system in Iran, using biology in order to decrease relapse rates and to increase treatment retention, to offer new therapeutic methods emphasizing on carving control, drug reinforcement attenuation as well as cognitive rehabilitation are the main targets in the treatment wing of the map. There are a series of short term and long term plans to reach the map's main objectives. Some of these initiatives are as follows:

1. To establish and reinforce problem solving-oriented laboratories and task groups.

2. To receive, evaluate, and fund research proposals based on their quality and their relevancy to the map in both centralized national funding programs and university based grants.

3. To follow up outcomes of approved proposals, to prepare multilevel information maps based on outputs and to design next generation of strategic maps and their research priorities based on yielded outputs.

4. To encourage educational institutes in the country to establish graduate programs in biological aspects of addiction science based on the map aims and scopes or revise and improve their current educational programs.

5. To establish, reinforce and promote the nongovernmental research institutes and businesses in the field of addiction biology.

6. To attract young researchers and new human resources in addiction biology by arranging incentive policies, holding training courses and defining research promotion packages according to the map's research priorities and needs.

7. To develop collaborative networks in the main map's research fields among its active researchers through these following resources: (1) Annual and monthly scientific meetings, (2) Scientific journals in addiction studies, (3) Incentives for multidisciplinary research proposals, (4) Sharing policies for human resources, instruments and technologies among active research centers, and (5) Interdisciplinary workgroups or research networks.

8. To inform policy makers and stake holders about scientific evidences yielded from the map oriented national and international studies and bias their critical decisions toward more effective and cost effective evidence based interventions.

## 3. Addiction and Neuroscience

The idea of "drug addiction besides all its socio economic, cultural, and spiritual features has a neuroscientific core in its nature" is widely accepted. DCHQ efforts for organizing a board of addiction biology experts to act as the addiction biology map taskforce committee shows serious high rank intention toward implementing scientific evidences in national executive levels for more effective addiction prevention and treatment relying this neuroscientific core. However, an additional important question remains; "How can we, as neuroscientists, promote research into the biology of addiction and vice versa by addressing opportunities in the introduced map?" We believe the answers are as follows;

1. To acknowledge current opportunities in addiction studies in Iran to use our expertise and resources in neuroscience to serve our nation and human being.

2. To set up a sustained interaction and dialogue with policy makers, drug counselors and clinicians to have better understanding of main questions in the field and national priorities to avoid laboratory based researches far from being applicable in the reality.

3. To find novel approaches to transfer our knowledge and expertise in different fields of basic and clinical neuroscience to drug abuse and addiction related domains.

4. To accept addiction studies as a multidisciplinary field that needs persistent collaboration with other disciplines inside or outside neuroscience.

5. To develop an expertise to benefit from high tech and cutting edge research in order to develop new ways to be able to enhance public awareness on biological basis of drug addiction and to build up public supports for extension of governmental funding on addiction neuroscientific studies.

6. To recognize funding opportunities and granting agencies which are active in the field of drug abuse nationally and internationally.

7. To be concerned and sensitive on sociocultural and ethical aspects of drug addiction studies as a sensitive and stigmatized phenomenon more than most of other brain disorders.

## 4. Conclusion

In conclusion, rapidly growing burden of addiction disorder in both national and international levels is calling scientists to develop more effective and cost effective preventive and therapeutic interventions. Iranian high rank policy makers in presidential office have acknowledged addiction biology studies for development of evidence based interventions with recruiting a task force committee for strategic planning on addiction biology and introduction of a national executive map in this year national addiction biology congress. This opportunity provides valuable funds and supports for Iranian neuroscientists to promote translational aspects of neuroscience in both national and international levels. The opportunity is worth enough to get inside new targets of our scientific community.

Persian version of the map is available at: http://addictionbiology.tums.ac.ir/page.aspx?id=956

And the map development board is welcome for any suggestions and criticisms for next map revisions.

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