Different Disciplines in the Field of Suicide Study

Shan Cao[1], Da-Yong Lu[2]*, Ting-Ren Lu[2] and Nagendra Sastry Yarla[3]

[1]Department of Art & Design, Kyoto University, Japan

[2]Department of Art & Design, Shanghai University, PR China

[3]Department of Art & Design, GITAM University, India

*Corresponding author: Da-Yong Lu, Department of Art & Design, Shanghai University, Shanghai PR China, Email: ludayong@shu.edu.cn

Abstract

Human suicide risks and mortality predictions and preventions may be transformed from symptom-based prediction systems into pathogenic profiling-supportive diagnostic systems. In addition, specific, highly active and low-toxicity drug may be developed from the wide-spectra parameters of objective clinical data (genomics/bioinformatics/morphology systems). To attain this goal, updating pathways tailored for suicide/mental illness therapeutic improvements may be noticed and established in this article.

Keywords: Human suicide; Human genome; Pathology; Neuropsychology; Mood disorder; Disease diagnostics; Neural pharmacology

Introduction

Human suicide is a long-noticed medical problem [1]. Currently, suicide prediction, prevention and therapeutics have a number of limitations [2]. To overcome these limitations, genetic/molecular pathogenesis studies are indispensable [3-8]. Genetic/molecular pathogenesis study is the priority [9]. In future, human suicide risks and mortality predictions and clinical diagnostics may be transformed from symptom-based score-index into pathogenic profiling supportive diagnostics. In addition, high specific, low-risk drug therapeutics might be established via parameters of genomics/bioinformatics/ morphology systems [10]. This summary offers possible routes for further scientific investigations.

Present Overview

a. In future, following scientific avenues are inevitable; including

b. Genetic, molecular and brain visualizing from pathologic/diagnostic study must be undergone. Without clarifying these patterns of pathogenic information, highly effective target drugs cannot be developed; finding these lines of genetic evidence is the top priority [3-8].

c. In-vitro genetic or molecular models available for basic neural researches and large-scale in-vivo pharmacological study must be established [7].

d. Seek medications from multidisciplinary; a relatively new medication idea might be suitable to solve the therapeutic deficiency from wide-range symptom-based diagnostics into pathogenic dysfunction evaluations by modern technology and finalizing comprehensive therapeutics [8-11].

e. Previous clinical applications for bipolar II disorder patients show some drug therapeutic beneficial outcomes, further scientific and medical work is needed [12-14].

Roadmap for Translational Study

Integration of suicide/mental illness conditions (DSM-V, suicidal ideation risks and self-injures)-disease progression (patients' depression)-score index into one system (pharmacogenetics) [3-7]. Support new generation of medical hypotheses and objective in clinical diagnostics [8]. Finding effective patents that help implementing drug treatment and risk/response evaluating and therapeutic prediction systems before suicide/mental illness medications [6]. Investigate neural genes, biological molecules and visual dysfunctions by new techniques such as opto-genetics, genetic engineering mice (GEM) and so on [7]. Systems biology, mathematics and computational network, models and systems may play magic role for in-depth understanding of intrinsic relationships between diagnosis and therapies [15,16]. Growing sample size of human genomes (larger individuals and populations) and relationship between different genetics/bioinformatics and visual data by different types of drugs and pathogenesis pathways are underway [1]. Interplay relationship between genetics, molecular, chemical, environmental factors and drug (such as antidepressant) efficacies and neural toxicities (suicide risks) must be established [17].

Genome-wide association study (GWAS) between depressed patients and normal persons, ethnic groups/races, family inheritable diseases, genders or ages of different pathogenic conditions will be rapidly undergone [3]. Undertaking high intelligent animal models, such as primates in pathogenesis and therapeutic studies [3- 6]. Genetic or genomic study of repeated DNA in human genomes and make new discoveries from wider human genome studies [7]. Perfect the joint-specialists participation therapeutics for suicide/mental illness study and clinical applications [11]. Budget control and cost-effective studies of all these scientific investigations, clinical utilities and therapeutic prediction and evaluations [10].

Conclusion

By these kinds of scientific and medical investigations, we can make a big difference in the near future. We hope new breakthroughs will be under way soon.

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