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APPLICATION OF PETRI NETS IN CLINICAL MEDICINE

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ABSTRACT

Petri nets is an important concept in electronics and communication engineering that can be applied in several purposed. In medicine, the application of Petri Nets is very interesting. Here, the authors discuss on specific application of Petri Nets in clinical medicine.

KEYWORDS: Petri Nets, Clinical Medicine.

INTRODUCTION

Petri nets is a mathematical modeling language for the description of complex dynamic distributed systems Petri nets is an important concept in electronics and communication engineering that can be applied in several purposed. In medicine, the application of Petri Nets is very interesting. At least, the Petri Nets can help model the complex metabolism. The good example is the application by Koch et al. for modelling the metabolism of plant [1]. In medicine, t he similar application can be expected. Here, the authors discuss on specific application of Petri Nets in clinical medicine. The interesting reports are hereby summarized.

SOME REPORTS ON PETRI NETS IN CLINICAL MEDICINE

There are some interesting reports on applications of application of Petri Nets in clinical medicine. The application for modeling of biological process in cancer is the good example [2]. The important reports are hereby summarized in Table 1. It can be seen that the application is helpful for the clarification of the complex process such as the metabolic pathways and patho physiological pathways.

Table 1.Some reports on application of Petri Nets in clinical medicine

Authors	Details
Russo et al. [2]	Russo et al reported on continuous Petri Nets and microRNA analysis in melanoma [2].
Behinaein et al. [3]	Behinaein et al reported on Petri net siphon analysis and graph theoretic measures for identifying combination therapies in cancer [3].
Almeida et al. [4]	Almeida et al. discussed on the application of Petri Nets in bioinformatics and referred to the new tool, Petri Scape [4].
Ashraf et al.[5]	Ashraf et al. used Petri Nets technique for pathway analysis for Alzheimer's disease [5].

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CONCLUSION

The orthopedic surgeons already apply Petri Nets in their clinical medicine. The application of the petri nets technique is proven useful, especially for the pathway study in clinical medicine. The technique is an actual hope for systematic biological study in biomedical research.

CONFLICT OF INTEREST: None

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