



The effect of sunthetic oligonucleotides on human neutrophils

Livenskiy A.D.

Introduction

Results

Materials and Methods

Neutrophils were separated from other cells of human's blood. The cells in concentration $2 \cdot 10^6$ cells/ml were incubated in RPMI with 10% FBS and with the addition of different oligonucleatides (T= 37°C ; $\text{CO}_2 = 5\%$). An amount of apoptosis cells was registered by flow cytometry with help propidium iodide(PI).

A number of reactive form of oxygen(ROS) was registered by spectrofluorometry with help fluorescein derivatives, which oxidized in cells and turn into fluorescent product.

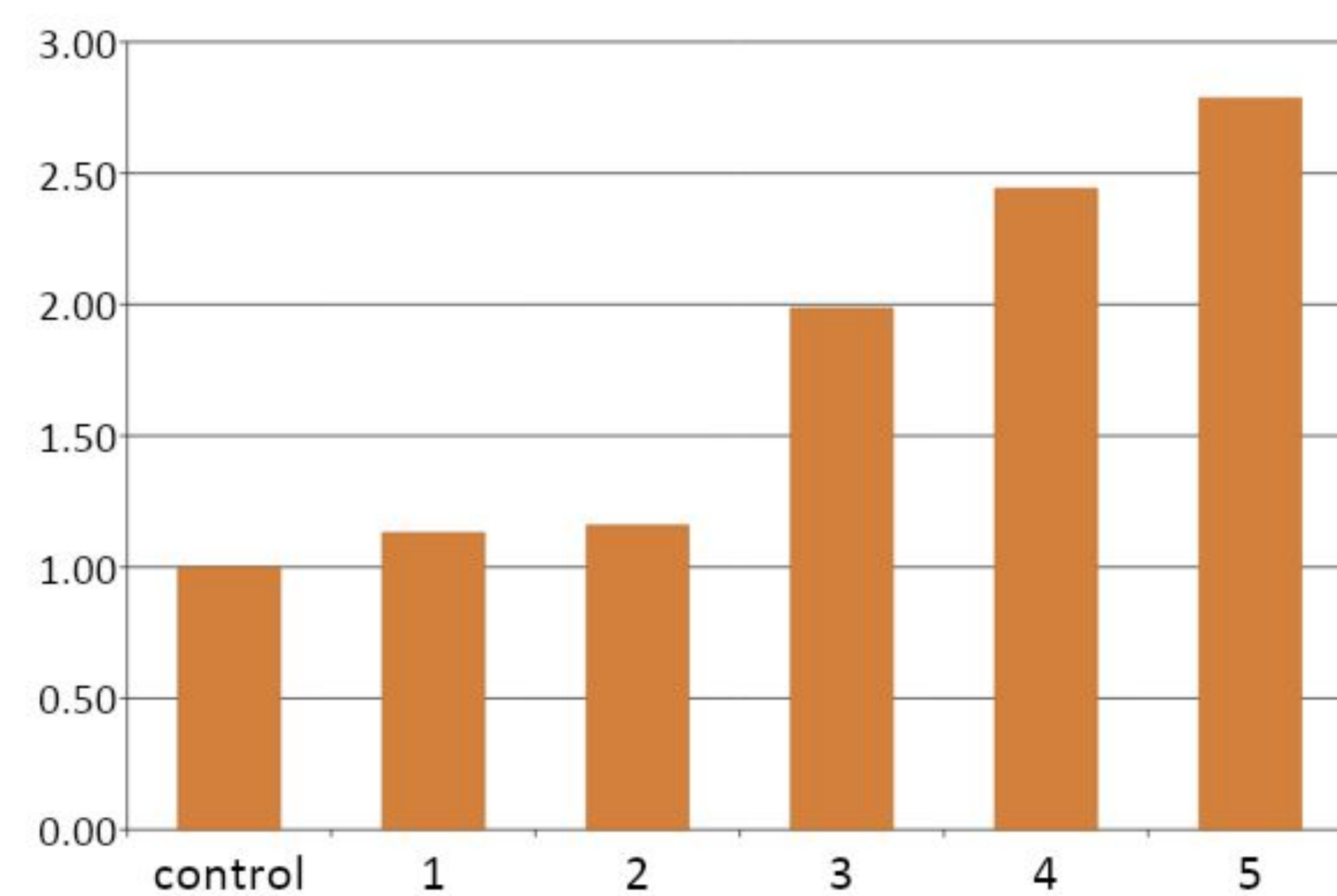


Fig.1 Correlation between amount of apoptosis cells and number of repeats $T(\text{TAGGG})_n$ ($n=1,2,3,4,5$) After 4 hours of incubation.

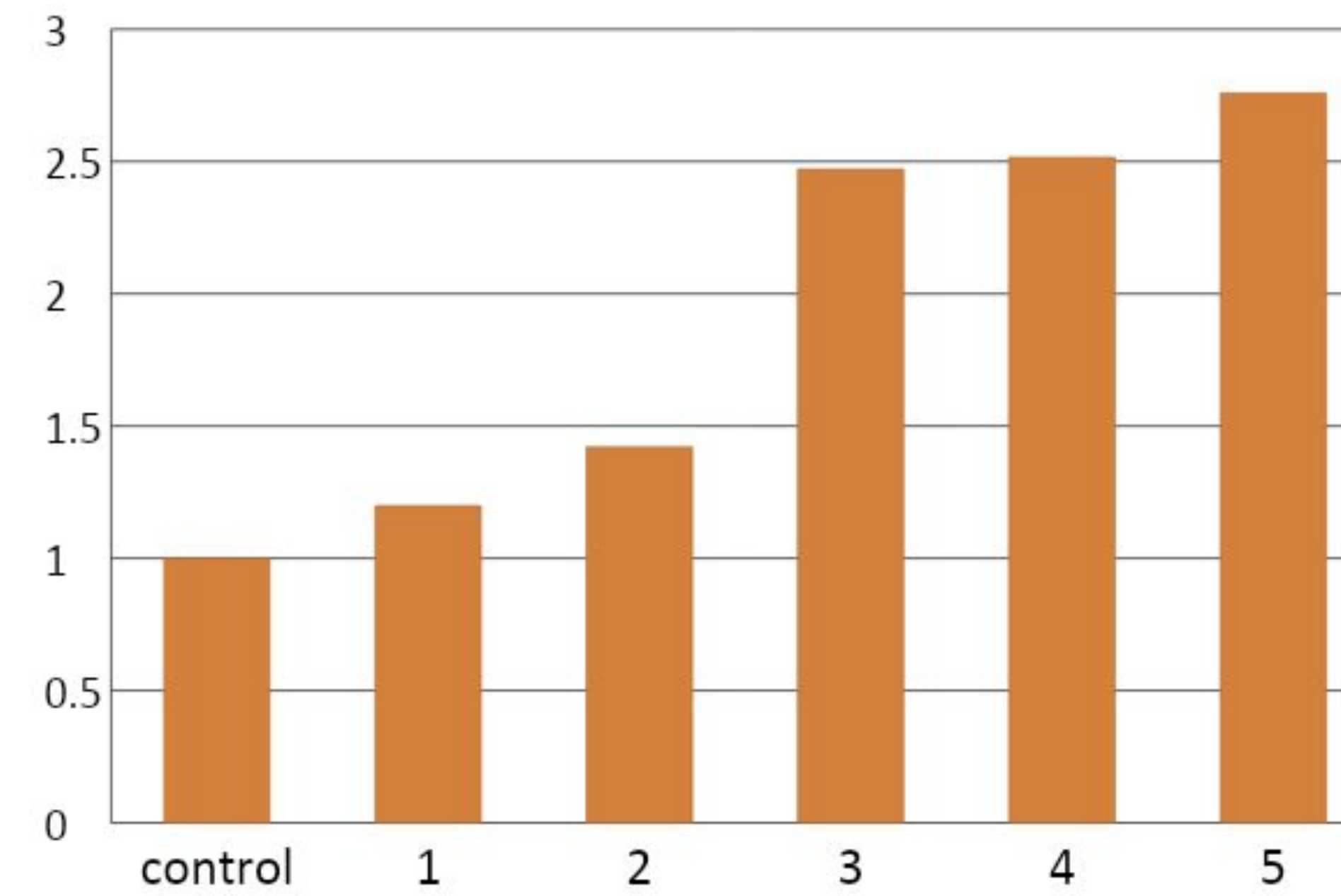


Fig.2 Correlation between amount of apoptosis cells and number of repeats $T(\text{TAGGG})_n$ ($n=1,2,3,4,5$) After 18 hours of incubation.

Aims

- Investigate action of ODN on neutrophils apoptosis
- Demonstrate effect of ODN on superoxide production

Conclusions

- Action of ODN on neutrophil's apoptosis was demonstrated.
- Correlation between apoptotic cells and length of ODN was shown
- Influence of ODN on superoxide production was revealed