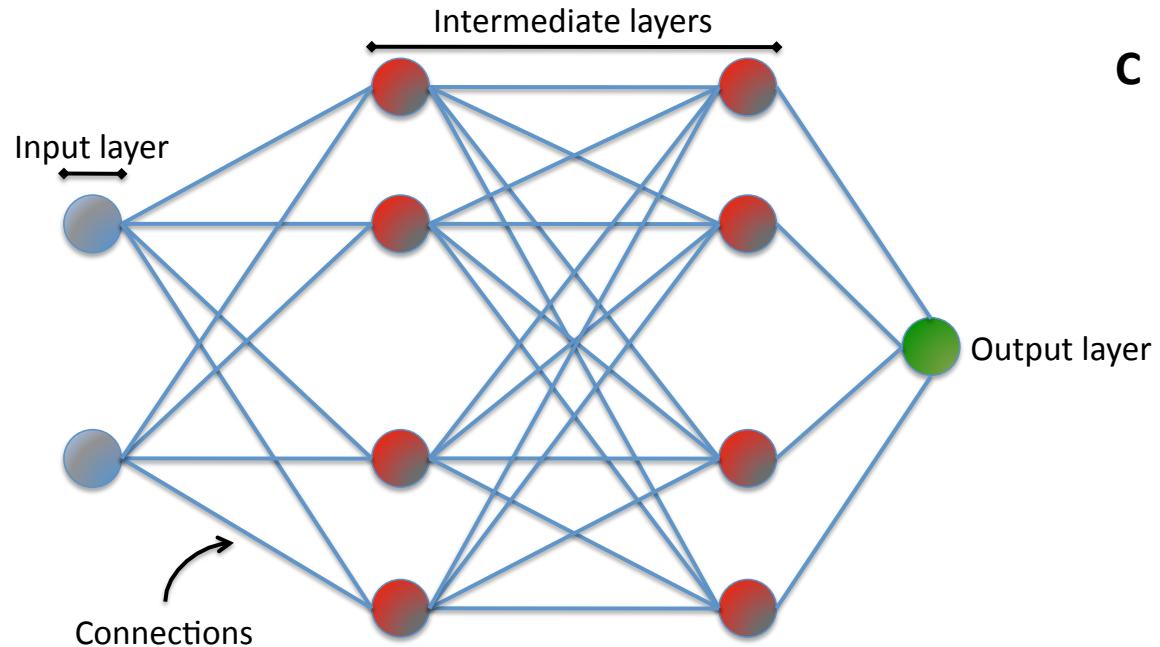


A**C**

Asymptomatic Malaria Diagnosis Based on Neural Networks

MaLDANN

Age (y) Sex M F

No. of previous malaria episodes

Months living in endemic area

Plasma IL-10 (pg/mL) Plasma IFN- γ (pg/mL)

Use of bed net Yes No

Run Diagnosis **Clear**

DIAGNOSIS
*Possibilities: No Malaria OR Asymptomatic Malaria

B

General design of the Artificial Neural Network used by the MaLDANN software

Software version	Input layer	02 intermediate layers	Output layer
MaLDANN Epidemiologic	<ul style="list-style-type: none"> ● Neurons 31 neurons Epidemiological variables* <p>Variables inputted</p> <ul style="list-style-type: none"> Epидемиологические переменные Возраст Пол Предыдущие эпизоды малярии Месяцы жизни в эндемичной зоне Использование сетей 	<ul style="list-style-type: none"> ● Neurons 10 neurons <p>Data processing to identify patterns</p>	<ul style="list-style-type: none"> ● Neurons 01 neuron <p>Generation of malaria diagnosis</p>
MaLDANN Epidemiologic + cytokines	<ul style="list-style-type: none"> ● Neurons 07 neurons Epidemiological variables + cytokine levels <p>Variables inputted</p> <ul style="list-style-type: none"> Клетки крови человека в плазме (pg/mL) IL-10 IFN-γ 	<ul style="list-style-type: none"> ● Neurons 10 neurons <p>Data processing to identify patterns</p>	<ul style="list-style-type: none"> ● Neurons 01 neuron <p>Generation of malaria diagnosis</p>