Algorithm 1 ARTIS(Aff_func, high_val, threshold)

Generate $D = \{d_1, d_2, ..., d_n\}$, $d_i \in \{0,1\}^n$.
Initialize $C = \{c_i = 0 | i \in [1, n]\}$, $M = \{\}$
▷ Tolerization
for $self\_ag$ in $self\_ags$ **do**
    for d_i in D **do**
        if $Aff\_func(self\_ag, d_i) \geq high\_val$ **then**
            Replace d_i with new random detector
        end if
    end for
end for
while (1) **do**
▷ Match antigen Ag with d_i for $d_i \in D$
    for d_i in D **do**
        if $Aff\_func(Ag, d_i) \geq high\_val$ **then**
            Raise intrusion flag for Ag
            Increment counter $c_i += 1$
            if $c_i >= threshold$ **then**
                Append d_i to M
            end if
        end if
    end for
end while
return M