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گواهی شرکت در برنامه های حضوری آموزش مداوم جامعه پزشکی (مدون، سمینار، کنفرانس، کارگاه)

گواهی می شود:

جناب آقای/ سرکار خانم **دکتر محمد مهدی قهرمانی سنو** در سومین کنگره ژنتیک پزشکی ایران که توسط انجمن ژنتیک پزشکی ایران در شهر تهران، تالار همایش های مرکز طبی کودکان از تاریخ ۲۵ لغایت ۲۶ اردیبهشت ماه ۱۳۹۲ برگزار گردیده مقالات زیر را به صورت پوستر ارائه داده اند:

- Investigating the presence of functional RNAi system in Trichomonas vaginalis by targeting α-actinin

دکتر جواد توکلی بزاز
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Investigating the presence of functional RNAi system in Trichomonas vaginalis by targeting α-actinin

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خلاصه مقاله:

Trichomoniasis is the most common non-viral sexually transmitted disease worldwide. This disease is caused by a flagellated protozoan, Trichomonas vaginalis (TV), that infects human reproductive tract. Pathogenesis of TV involves parasite morphological changes upon exposure to the host epithelial cells. α-actinin, a member of actin-binding protein family, is involved in cytoskeletal rearrangements responsible for morphological changes such as transformation from ellipsoid to amoeboid forms.

RNA interference (RNAi) is a biological process in which RNA molecules inhibit gene expression, mostly by inducing the destruction of specific mRNA molecules or interfering with translation. Small interfering RNAs (siRNAs) which are 21-23 nucleotides long interfere with gene expression by directing their cognate mRNA degradation. This system can experimentally be exploited in functional studies to target mRNAs of interest using artificially synthesized siRNAs. However, since the presence of other cellular factors such as argonaute proteins is necessary for having a functional RNAi system, the organisms which do not express these accessory factors are not amenable to this approach.

In this study artificially synthesized siRNAs targeting a-actinin were used to determine whether TV has a functional RNAi system that could potentially be exploited in genetic functional analyses and therapeutic approaches. For this purpose, TV cells were cultured in TYI-S-33 medium and the siRNAs were electroporated into these parasites at their logarithmic phase of growth. siRNAs targeting firefly luciferase GL2 were used as control. After 24 hours of incubation in TYI-S-33 total RNA was extracted and used to evaluate the expression levels of a-actinin in test and control groups. This experiment was repeated three times that resulted in 30-62% down regulation of α-actinin expression in the test groups compared to the controls. Our results suggest a functional RNAi system exists in TV.

واژه های کلیدی:

تریکوموناس واژینالیس، RNAi (RNA مداخله گر)،a-actinin،Pathogenesis

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