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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 cp12**

دکتر جواد توکلی بزاز
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Investigating the presence of functional RNAi system in Trichomonas vaginalis by targeting cp12

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خلاصه مقاله:

Trichomoniasis is the most common non-viral sexually transmitted diseases worldwide. This disease is caused by the flagellated protozoan Trichomonas vaginalis (TV). TV inhabits human reproductive tract and the resulting infection is potentially associated with serious complications such as preterm birth and increased risk of HIV and papillomavirus acquisition and transmission. TV expresses multiple proteinases, with cysteine proteinases (CP) as a major group, that are involved in parasite's virulence and pathogenesis. Cysteine proteinases 12 (CP12), from papain-like CP family, has potential roles in pathogenesis of TV.

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 developing 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 cp12 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 cp12 in test and control groups. This experiment was repeated three times that resulted in 40-60% down regulation of cp12 expression in the test groups compared to the controls. Our results suggest a functional RNAi system exists in TV.

واژه های کلیدی:

RNAi (مداخله گر RNA) - تریکوموناس واژینالیس - سیستئین پروتئیناز - IVH

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