

ANTI-DOPING DEPARTMENT  
OF THE CROATIAN  
INSTITUTE FOR TOXICOLOGY AND ANTI-DOPING



**2016 ANNUAL REPORT**

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# INTRODUCTION

# CROATIAN **NO!** TO DOPING

**T**he main goal of the Anti-Doping Department /hereinafter Department/ of the Croatian Institute for Toxicology and Anti-Doping /hereinafter CITA/ is to protect fundamental right to participate in doping-free sport and thus promote health, fairness and equality for all athletes.

This goal is achieved by creating and implementing coordinated and effective anti-doping programs at the national and international level.

In achieving its goal, through its Department, CITA proposes and implements measures in the fight against doping, enforces the **CITA Anti-Doping Rules**, provisions of the UNESCO Conventions, WADA **Code** (World Anti-Doping Agency), **rules** of international sport federations and the International Olympic Committee and **systemically monitors and coordinates actions of governmental and non-governmental organizations**.

In the fight against doping, CITA cooperates with the **Ministry of Health, Ministry of Education, Science and Sports, Central State Office for Sports, Ministry of Interior Affairs, State Attorney's Office, Ministry of Foreign and European Affairs, Ministry of Culture – Service for UNESCO, The Agency for Medicinal Products and Medical Devices of Croatia, the Office for Combating Drugs Abuse and national organizations for the fight against doping in other countries**.

CITA's partners in the fight against doping in sport among non-governmental organizations are **UNESCO, WADA, Council of Europe, iNADO, Croatian Olympic Committee, Croatian Paralympic Committee, Medical Commission of the Croatian Olympic Committee, School of Medicine, University of Zagreb, Faculty of Kinesiology, University of Zagreb, Croatian Olympic Academy, Croatian School Sports Federation, and UEFA and other international and national sport federations and clubs**.

In 2016, the Department worked in seven main areas:

- 1. Implementation and improvements of the legislation**
- 2. Doping controls, investigations and results management**
- 3. Doping prevention**
- 4. International cooperation**
- 5. Therapeutic use exemptions**
- 6. Medicine and science**
- 7. Facilities and equipment maintenance**



# THE REPORT

## 1. IMPLEMENTATION AND IMPROVEMENTS OF THE LEGISLATION

In 2016, CITA continues to implement the provisions of the World Anti-Doping Agency Code through its Anti-Doping Rules, as well as the implementation of the International Standard for Therapeutic Use Exemptions, International Standard for Testing and Investigations, International Standard for Protection of Privacy and Personal Information and International Standard for Laboratories.

The 2016 Prohibited List was published in late 2015 with a circulation of 1000 copies in a standard format, and 1000 pocket-sized copies. In January, it was distributed to the users (COC and associated members, and national federations). The Prohibited List can also be found on the website of the Agency, since mid-December 2015.

The CITA Anti-Doping Department launched an initiative with the Ministry of Health to supplement national legislation in the field of anti-doping in sport in order to better align the position of the national anti-doping organization with the UNESCO Convention, WADA Code and the Council of Europe Convention, and to enable compliance with Article 10.10 and Chapter 12 of the Anti-Doping Rules, which is not possible at the moment, due to the position of the national anti-doping organization.

After a preparation in writing, at a meeting with Deputy Minister for Health Dr. Bekavac on April 26, 2016, the intent of the Ministry of Health to establish an autonomous and independent national anti-doping organization was confirmed. The meeting was held in the presence of the iNADO CEO Joseph de Pencier and iNADO Operations Manager Matthias Merschhemke. The deadline was set for the end of the 2016 year. Mr. de Pencier's opinion about the initiative was extremely positive.

During a meeting on July 5, 2016, Deputy Minister for Health Dr. Bekavac confirmed the establishment of the autonomous and independent anti-doping organization was included in the proposal of the new Health Act. In this way, the preconditions for the adoption of the Anti-Doping in Sport Act and the amendment of the Anti-Doping Rules by adding Article 10.10 and chapter 12 would be met.

In December 2016, CITA launched an initiative for the adoption of a new Prohibited list for sports, which would be in line with the WADA 2017 Prohibited list. The adoption of the aforementioned List lies within the jurisdiction of the Minister for Health. The List is adopted pursuant to Article 383 item 4, and in relation to Article 191.a of the Criminal Code, i.e. a criminal offence of producing and trafficking substance prohibited in sport (OG 125/11, 144/12, 56/15, 61/15).

## 2. DOPING CONTROLS, INVESTIGATIONS AND RESULTS MANAGEMENT

The improvements were continued in this area in 2016 as well. This included the application of the WADA Technical Document for Sport Specific Analysis (TDSSA) and education of the Doping Control officials. In accordance with the aforementioned documents for 2016, a new system for test planning and Doping Controls was developed.

### TESTING PLAN

The 2016 Testing plan focused on certain sports, risk factors for each sport were estimated, history of doping and popularity of individual sports in the Republic of Croatia were taken into consideration. Based on the analysis of the collected data, a Testing plan was created. It is necessary to point out the year 2016 was an Olympic year, so in the drafting of the Testing plan special attention was given to the Olympic candidates. Individual sports and athletes were monitored, which forms a basis for intelligent testing. The Testing plan consistently included the WADA Technical Document for Sport Specific Analysis. In 2016, 650 Doping Controls were performed within the national program, 320 of which in-competition, and 330 out-of-competition. One hundred twenty-five Doping Controls were performed within the international cooperation framework, 117 of which in-competition, and eight out-of-competition.

Testing per sport in the 2016 national program.

| SPORT              | IN-COMPETITION | OUT-OF-COMPETITION |
|--------------------|----------------|--------------------|
| VOLLEYBALL         | 10             | 17                 |
| ATHLETICS          | 32             | 40                 |
| GYMNASTICS         | 0              | 21                 |
| FOOTBALL           | 58             | 16                 |
| BASKETBALL         | 71             | 31                 |
| HANDBALL           | 36             | 41                 |
| WATER POLO         | 8              | 19                 |
| GOLF               | 4              | 0                  |
| SWIMMING           | 29             | 6                  |
| JUDO               | 10             | 9                  |
| SAILING            | 0              | 10                 |
| TAEKWONDO          | 6              | 11                 |
| CYCLING            | 9              | 21                 |
| WRESTLING          | 8              | 9                  |
| ARCHERY            | 0              | 13                 |
| ROWING             | 5              | 15                 |
| DISTANCE SWIMMING  | 0              | 5                  |
| BOXING             | 10             | 6                  |
| KARATE             | 6              | 5                  |
| DIVING             | 2              | 0                  |
| TABLE TENNIS       | 0              | 1                  |
| HANDBALL- DEAF     | 0              | 20                 |
| TABLE TENNIS- DEAF | 5              | 0                  |
| ARCHERY- DEAF      | 0              | 5                  |
| POWERLIFTING       | 2              | 2                  |
| KICKBOXING         | 3              | 0                  |
| SAMBO              | 4              | 0                  |
| MMA                | 2              | 0                  |
| KAYAKING CANOEING  | 0              | 5                  |
| TAEKWONDO- DEAF    | 0              | 2                  |
| <b>TOTAL</b>       | <b>320</b>     | <b>330</b>         |

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#### DOPING CONTROLS PERFORMED WITHIN THE 2016 NATIONAL PROGRAM

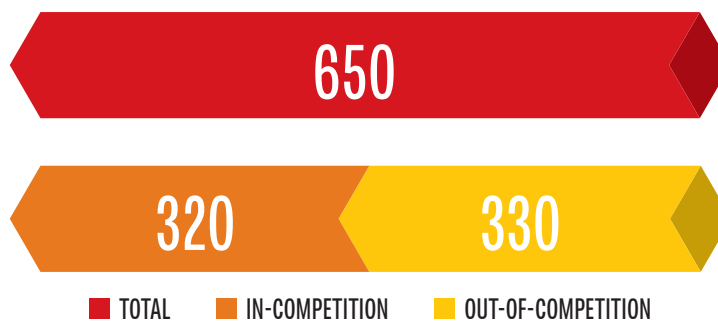


Figure 1 – DOPING CONTROLS PERFORMED WITHIN THE 2016 NATIONAL PROGRAM

Testing within the international cooperation in 2016

| SPORT                  | IN-COMPETITION | OUT-OF-COMPETITION |
|------------------------|----------------|--------------------|
| ATHLETICS              | 16             | 0                  |
| GYMNASTICS             | 6              | 0                  |
| WATER POLO             | 2              | 0                  |
| FENCING                | 2              | 0                  |
| JUDO                   | 28             | 0                  |
| SAILING                | 0              | 2                  |
| ARCHERY                | 4              | 0                  |
| BOXING                 | 24             | 0                  |
| SYNCHRONIZED SKATING   | 8              | 0                  |
| ATHLETICS PARALYMPIANS | 2              | 0                  |
| MUAY THAI              | 3              | 0                  |
| MMA                    | 0              | 6                  |
| DIVE                   | 12             | 0                  |
| SAVATE                 | 10             | 0                  |
| <b>TOTAL</b>           | <b>117</b>     | <b>8</b>           |

DOPING CONTROLS WITHIN THE INTERNATIONAL COOPERATION IN 2016

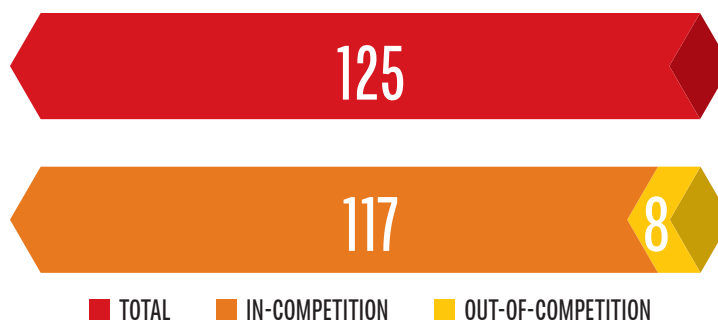
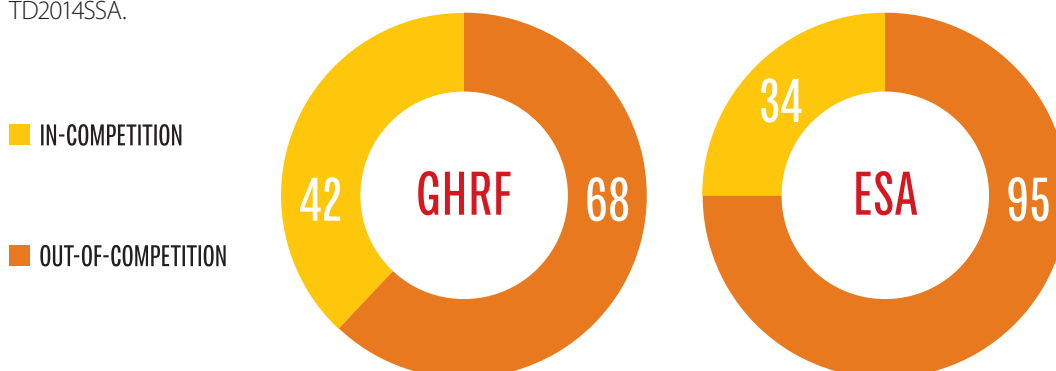


Figure 2 – DOPING CONTROLS WITHIN THE INTERNATIONAL COOPERATION IN 2016

Besides the usual urine and blood test analysis, the technical document demanded new specialized methods for the urine and blood test analysis for detecting:

- ▶ **ESA** (erythropoiesis-stimulating agents)
- ▶ **GH** (growth hormone)
- ▶ **GHRF** (growth hormone-releasing factor)

Pursuant to Article 4.2 of the International Standard for Testing and Investigations, CITA drafted a Testing plan with a minimum number of demanded analysis, in accordance with the Technical document TD2014SSA.





CITA implemented the Plan, and WADA monitored and controlled its implementation. Two hundred thirty-six analyses from this group were carried out in 2016.

CITA has been included in the **Steroid Module of the Biological Passport Program** since 2014, which is very reliable in detecting the lowest concentrations of exogenous substances from the S1 category (Anabolic Steroids) which belong to unspecified substances. In 2016, CITA continued to participate in the implementation of the Module.

### REGISTERED TESTING POOL

Intelligent testing has led to big changes in the approach, method of work and composition of the Registered Testing Pool. The number of athletes in the Registered Testing Pool varied between 60 and 90, and they were included in the Pool based on the Testing plan and in accordance with the doping risk assessment of individual sports and athletes. Athletes were provided assistance with **delivering their whereabouts information, they were provided with education and 24-hour availability by phone**. WADA Technical Document for Sport Specific Analysis was applied to the Registered Testing Pool in accordance with the Testing plan.

### DOPING CONTROL OFFICIALS

The application of WADA Technical Document for Sport Specific Analysis and drafting of the Testing plan in accordance with the new regulations requested additional Doping Control officials' education. In the first half of 2016, rules were drafted which regulated testing carried out by CITA as a national anti-doping organization, and in accordance with the International Standard for Testing and Investigations in more detail. **Control of the Doping Control officials' work was more extensive than in the previous years**, in accordance with the new requests for a sport specific analysis. In 2016, **six new candidates for Doping Control officials were educated** in Zagreb.

In-competition Controls were carried out in international competitions, Croatian championships and league competitions according to the Testing plan.

Employees of the Testing section within the Anti-Doping Department participated in the Doping Control officials' education program in Sarajevo, Tuzla and Banja Luka, under the UNSECO project, and within the international cooperation with the Agency for Anti-doping control of Bosnia and Herzegovina.

**In 2016, a re-accreditation examination was performed for Doping Control officials according to the following schedule:**

- ▶ October 16, 2016 – **Split**, Doping Control officials for the Split center
- ▶ December 3, 2016. – **Rijeka**, Doping Control officials for the Rijeka center
- ▶ December 16, 2016. – **Zagreb**, Doping Control officials for the Zagreb and Osijek centers

### TESTING AND SAMPLE COLLECTION

In order to improve the quality of the testing and strengthen the chain of custody, CITA started a cooperation with iNADO. iNADO implemented a program for the assessment of testing quality and sample collection using the requested documentation and by an on-site inspection, and awarded CITA with an iNADO Quality Recognition for Sample Collection after the assessment of several dozens of quality parameters. The recognition is valid until July 31, 2018. CITA is the second national anti-doping organization in Europe (the first one comes from Ireland) to receive this recognition.

APLIKATA program was improved by enabling the monitoring of specific analysis by sports.

### RESULTS MANAGEMENT

**Six sessions of the CITA Hearing panel** were held within the results management. Five athletes tested positive to prohibited substances and were imposed with a disciplinary measure and prohibited from competing and participating in all sport events in the period of one to eight years.

In the reporting period of this report, one request for the reduction of the period of ineligibility was received.

### CITA Hearing panel held six (6) sessions in 2016 on grounds of the violation of the provisions of the CITA Anti-Doping Rules:

1. Session held on January 5, 2016, athlete Lisa Christina Nemec (athletics – marathon), tested positive for recombinant erythropoietin (category S2.1. Erythropoietin-Receptor agonists of the Prohibited List). The athlete was imposed with a disciplinary measure of prohibition of competing and participating in all sports competitions and events in duration of 4 years.
2. Session held on January 25, 2016, athlete Siniša Hogač (wrestling), tested positive for stanozolol and its metabolites (category S1.1.a Anabolic Androgenic Steroids of the Prohibited List). Second violation of an anti-doping rule. The athlete was imposed with a disciplinary measure of prohibition of competing and participating in all sports competitions and events in duration of 8 years.
3. Session held on April 13, 2016, athlete Marić (athletics – discus throw), tested positive in 2014 to ostarine (category S1.2 Other Anabolic Agents of the Prohibited List), and was imposed with a disciplinary measure of prohibition of competing and participating in all sports competitions and events in duration of 2 years. The period of ineligibility was reduced by 3 months.
4. Session held on June 6, 2016, athlete Marin Premeru (athlete – shot put), tested positive to pralmoreline / GHRP-2 (category S2.5 Growth Hormone (GH) and its releasing factors of the Prohibited List). The athlete was imposed with a disciplinary measure of prohibition of competing and participating in all sports competitions and events in duration of 4 years.
5. Session held on June 17, 2016, athlete Marin Vukman (MMA), tested positive to THC metabolites (category S8 cannabinoids from the Prohibited List). The athlete was imposed with a disciplinary measure of prohibition of competing and participating in all sports competitions and events in duration of 1 year.
6. Session held on July 14, 2016, athlete Marko Fržop (cycling), tested positive to sibutramine metabolites (category S6.b Stimulants of the Prohibited List). The athlete was imposed with a disciplinary measure of prohibition of competing and participating in all sports competitions and events in duration of 2 years.

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Table with the sessions of the Hearing panel in 2016

| DATE OF THE SESSION   | SPORT                     | OFFENDER                       | TYPE AND GROUP OF THE SUBSTANCE FROM THE LIST | DISCIPLINARY MEASURE  | THE VIOLATED ARTICLE OF THE RULES |
|-----------------------|---------------------------|--------------------------------|---|---|-----------------------------------|
| 5.1.2016.<br>SP 6/15  | athletics<br>marathon     | Lisa Christina Nemec (athlete) | recombinant erythropoietin (cat. S2.1)        | 4 years   | 2.1                               |
| 25.1.2016.<br>SP 7/15 | wrestling                 | Siniša Hogač (athlete)         | stanozolol and its metabolites (cat. S1.A)    | 8 years   | 2.1                               |
| 13.4.2016.<br>SP 5/14 | athletics discus<br>throw | Martin Marić (athlete)         | ostarine (cat. S1.2)                          | reduction of the period of ineligibility (2 years) for 3 months | 2.1                               |
| 6.6.2016.<br>SP 1/16  | athletics<br>shot put     | Marin Premeru (athlete)        | pralmorelin /GHRP-2 (cat. S2.5)               | 4 years   | 2.1                               |
| 17.6.2016.<br>SP 2/16 | MMA                       | Marin Vukman (athlete)         | THC metabolites (cat. S8)                     | 1 year  | 2.3                               |
| 14.7.2016.<br>SP 3/16 | cycling                   | Marko Fržop (athlete)          | sibutramine metabolites (cat. S6.B)           | 2 years   | 2.1                               |

**CITA Appeal panel held two sessions in 2016:**

1. Session held on May 18, 2016., appeal submitted by CITA to the decision of the Hearing panel SP 5/14 dated April 13, 2016, on the reduction of the period of ineligibility by 3 months of athlete Martin Marić. The decision on the reduction of the period of ineligibility was annulled, and the decision on the period of ineligibility of 2 years was confirmed.
2. Session held on September 6, 2016, the appeal by athlete Marin Premeru to the decision of the Hearing panel SP 1/16 dated July 6, 2016. The appeal by the athlete was denied, and the decision on the period of ineligibility of 4 years was confirmed.

Table with the sessions of the Appeal panel in 2016

| DATE OF THE SESSION   | SPORT                     | OFFENDER                   | TYPE AND GROUP OF THE SUBSTANCE FROM THE LIST | DISCIPLINARY MEASURE   | THE VIOLATED ARTICLE OF THE RULES |
|-----------------------|---------------------------|----------------------------|---|--|-----------------------------------|
| 18.5.2016.<br>ŽP 1/16 | athletics<br>discus throw | Martin Marić<br>(athlete)  | ostarine<br>(cat. S1.2)                       | The decision on the reduction of the period of ineligibility was annulled and the decision on the period of ineligibility of 2 years was confirmed | 2.1                               |
| 6.9.2016.<br>ŽP 2/16  | athletics<br>shot put     | Marin Premeru<br>(athlete) | pralmorelin /GHRP-2<br>(cat. S2.5)            | The appeal of the athlete was denied, and the decision on the period of ineligibility of 4 years was confirmed                                     | 2.1                               |

The annual meeting of the CITA Hearing and Appeal Panel was held in December 2016, at which the work of the Panels during 2016 was presented. The issues identified in the work and established compliance with the recommendations of the Council of Europe monitoring group from the 45th meeting held in Kiev were discussed.

### 3. DOPING PREVENTION

As well as in the previous year, the implementation of constant information and education of target groups on the harmful effects of doping and the applicable regulations was continued. The target groups included athletes from the Registered Testing Pool, professional athletes, competing in top leagues, international-level athletes, athletes from "high risk sports", Olympic candidates and other participants involved in sport on a top level (coaches, doctors, physiotherapists, etc.). The education was provided in form of lectures, the Athlete Outreach Program, magazine NE!DOPINGU, websites, brochures and leaflets, and other activities.

#### LECTURES

**During 2016, 17 lectures were held, and this type of education included around 580 persons.**

*Table with lectures held in 2016*

| DATE         | VENUE                           | GROUP  | NUMBER OF PARTICIPANTS |
|--------------|---------------------------------|--|------------------------|
| 30.1.16      | Zagreb (Sesvete)                | Wrestling Coaches Association of Croatia                         | 50                     |
| 01.02.16     | Zagreb, MEF (KB Dubrava)        | Students at the School of Medicine                               | 15                     |
| 11.02.16     | Zagreb, MEF (KB Dubrava)        | Students at the School of Medicine                               | 25                     |
| 25.02.16     | Sesvetski Kraljevac             | Students of 8th grade (elementary school in Sesvetski Kraljevac) | 90                     |
| 08.03.16     | Ivanić Grad                     | Croatia women's handball team (U16)                              | 20                     |
| 15.03.16     | Đurđevac                        | Croatia women's handball team (juniors)                          | 20                     |
| 17.03.16     | Zagreb (Mladost)                | Athletic Club Agram  | 40                     |
| 07.04.16     | Split                           | Water polo league (3 clubs)                                      | 10                     |
| 15.04.16     | Zagreb, policijska akademija    | International police conference (countries within the region)    | 100                    |
| 24.05.16     | Zagreb (HZTA)                   | Croatian Diving Association                                      | 15                     |
| 01.06.16     | Zagreb (Maksimir)               | Athletics Club Dinamo (U16)                                      | 20                     |
| 11.06.16     | Medulin (Fužine)                | National championship in underwater orienteering                 | 10                     |
| 30.06.16     | Zagreb, HZTA                    | Students of sanitary engineering, Mostar, BIH                    | 20                     |
| 25.08.16     | Zagreb, Dom Sportova            | CRO Skating Team (female)  | 52                     |
| 29.09.16     | Zagreb, sportska dvorana Trnsko | Volleyball Club Fortis, seniors                                  | 15                     |
| 06.10.16     | Zagreb                          | Athletic Club Ulix   | 50                     |
| 12.11.16     | Virovitica                      | Croatian Powerlifting Federation                                 | 30                     |
| <b>TOTAL</b> |                                 |  | <b>582</b>             |

Along with the stated lectures, a continuously solid cooperation with the Health Commission of the Croatian Olympic Committee should be highlighted, by means of which a 2016 Prohibited List and the joint efforts on the implementation of the preolympic anti-doping program were presented.

The CITA Anti-Doping Department continued its cooperation with the School of Medicine in Zagreb in the implementation of undergraduate studies by means of the optional course "Doping and Anti-Doping" in the fourth year of the undergraduate studies.

**ATHLETE OUTREACH PROGRAM**

In the same period, twenty-six (26) Athlete Outreach Programs were organized, nine (9) of which within the national program, and seventeen (17) within the prePLAY project (Erasmus+ program). With this form of education, the CITA Anti-Doping Department was active in sport competitions during 38 days, and educated around 2900 persons.

*Table with the Athlete Outreach events*

| DATE         | PLACE        | NAZIV SKUPA                                 | NUMBER OF DAYS | PERSONS EDUCATED |
|--------------|--------------|---|----------------|------------------|
| 13.-14.02.16 | Karlovac     | WAKO European Cup Karlovac Open 2016        | 2              | 100              |
| 27.02.16     | Zagreb       | Croatian Boxing Championship                | 2              | 20               |
| 04.-05.03.16 | Zagreb       | "Doping nije h0Kej"                         | 2              | 120              |
| 06.03.16     | Zagreb       | "Doping nije h0Kej"                         | 1              | 30               |
| 10.-11.03.16 | Zagreb       | Zagreb Junior synchronized skating          | 2              | 100              |
| 12.03.16     | Zagreb       | Dance sport, Trešnjevka Cultural Centre     | 1              | 50               |
| 12.03.16     | Split        | MMA competition                             | 1              | 35               |
| 19.03.16.    | Zelina       | Croatian Karate Championship                | 1              | 30               |
| 20.03.16.    | Zagreb       | Croatian Taekwondo Championship             | 1              | 40               |
| 09.04.16     | Sv. Nedjelja | Judo Sakura Cup                             | 1              | 58               |
| 09.04.16     | Zagreb       | Football Tournament OŠ Kralja Tomislava     | 1              | 33               |
| 10.04.16     | Zagreb       | Dance sport, Trešnjevka Cultural Centre     | 1              | 19               |
| 12.04.16     | Zagreb       | Education at OŠ A. Šenoa                    | 1              | 170              |
| 16.04.16     | Zagreb       | Sport for everyone                          | 1              | 100              |
| 17.04.16     | Zagreb       | Sportske novosti Cross                      | 1              | 100              |
| 17.04.16     | Zagreb       | Dance sport, Trešnjevka Cultural Centre     | 1              | 35               |
| 23.-24.04.16 | Zagreb       | Croatian Fencing Championship               | 2              | 70               |
| 24.-25.04.16 | Poreč        | National championship of elementary schools | 2              | 200              |
| 27.-29.04.16 | Poreč        | National championship of high schools       | 2              | 200              |
| 29.-30.04.16 | Osijek       | International Gymnastics Championship       | 2              | 60               |
| 12.05.16     | Zagreb       | "Kampusijada"                               | 1              | 50               |
| 23.05.16     | Zagreb       | Olympic day                                 | 1              | 800              |
| 13.-22.07.16 | Zagreb       | ESI 2016 Rijeka Zagreb                      | 3              | 150              |
| 14.-15.07.16 | Rijeka       | ESI 2016 Rijeka Zagreb                      | 2              | 80               |
| 10.09.16     | Zagreb       | European Day of Sport                       | 1              | 100              |
| 07.-08.10.16 | Zagreb       | Croatian Rowing Championship                | 2              | 100              |
| <b>TOTAL</b> |              |   | <b>38</b>      | <b>2.920</b>     |

At the beginning of the year, a 2016 Prohibited List was distributed in a circulation of 2000 copies in total. The 2016 List was published not only in a standard format, but in a pocket-format as well, in order to be more suitable to athletes and sports workers. In addition, a brochure "Doping control procedure" was drafted and printed in a circulation of 1000 copies. Due to a big interest, another 500 copies of the CITA Anti-Doping Rules were printed.

### NE!DOPINGU magazine

By the end of the year, six (6) issues of the NE!DOPINGU magazine were published in a single print run of 1000 copies, out of overall six (6) planned issues. The magazine is distributed to national federations, sport clubs, schools, health organizations, athletes, sport workers and members of the CITA panels.



### WADA ALPHA

In December 2016, the Anti-Doping Department, in cooperation with WADA, finished the activities related to the implementation of the ALPHA project (Eng. Athlete Learning Program about Health and Anti-Doping), allowing the athletes' access to the aforementioned advanced educational program via our website in the Croatian language. It is a program intended for a comprehensive education of athletes in the area of anti-doping, that includes a knowledge test and enables them to get a certificate.

### 'KRIEGER STORY' VIDEO

By the end of 2016, in cooperation with the German Anti-Doping Agency, an educational video 'Krieger story' with Croatian subtitles was prepared. This enabled us to send a clear message about the systemic doping of athletes, and efficiently deter people from doping. Video will be uploaded to the website of the German Anti-Doping Department at the beginning of 2017, and a link to the content will be provided on the website of the CITA Anti-Doping Department. The video will be used during various educational activities (lectures).

### WEBSITE

The CITA Anti-Doping Department website was actively used to continually maximize awareness and education of all participants in sport. It provides athletes and all interested participants in the world of sport with access to a List of registered drugs in Croatia that contain any of the substances on the Prohibited List. This List is constantly being updated (on a monthly basis) in cooperation with the Agency for Medicinal Products and Medical Devices. The website provides support for all other segments of the anti-doping activities (testing, therapeutic exemptions, legislation, brochures, etc.) It includes a WADA Doping Control video with Croatian translation.



WEBSITE OF THE ANTI-DOPING DEPARTMENT

**'PLAY TRUE DAY'**

April 3 - 17, 2016 and as part of the Erasmus+ program and prePLAY project, five European countries implemented extensive anti-doping activities, related to the 'Play True Day'. During the 'Play True Day' a two-week intensive media campaign with anti-doping messages was conducted.

**The anti-doping campaign within the prePLAY program included the following:**

- ▶ **Jutarnji list** („I borci protiv dopinga uz kros – Sport mora biti čist i pošten“), article
- ▶ **Sportske novosti** („Trkači na maloj školi antidopinga“), article
- ▶ **Večernji list**, article
- ▶ **Radio Student** - interview
- ▶ **Radio Sljeme** - program
- ▶ **Sportska TV**, five reports
- ▶ **HRT**, Dobro jutro Hrvatska program
- ▶ **HRT Magazin**, program



**In these two weeks, the anti-doping ambassadors collected more than 700 signatures in support of a clean sport, but the message has reached a lot more people thanks to all media activities.**

**MEDIA RELATIONS****The Anti-Doping Department participated in the following programs:**

- ▶ **HRT**, Dnevnik, on the topic of Meldonium
- ▶ **Nova TV**, program dealing with growth hormone
- ▶ **HRT**, program on the topic of Meldonium
- ▶ **HRT**, „Vita jela zelen bor“
- ▶ **HRT**, Treći element
- ▶ **Hrvatski radio**, 'Eppur si muove' program
- ▶ **Radio 101**  
(related to the topic of banning the Russians from participating in the Olympic Games in Rio)
- ▶ **Hrvatski radio**, 3rd program (topic 'the consequences of doping')
- ▶ interviews to various websites (**net.hr**, **index**, **t-portal**, **sportnet**, ...)
- ▶ Interviews published in magazine **Gloria** and **Večernji list** newspaper

**In 2016, the Anti-Doping Department made 17 public appearances, which included an extremely big number of people in terms of raising awareness of doping in sport.**

## 4. INTERNATIONAL COOPERATION

### INTERNATIONAL ACTIVITIES AND INTERNATIONAL COOPERATION

During 2016, the CITA Anti-Doping Department worked on strengthening its cooperation with scientific and health bodies and institutions dealing with doping in sport.

**During this period, we participated in the following meetings within the framework of international cooperation:**

- ▶ January 18 - 20, 2016, Bled (Slovenia): a prePLAY meeting of project teams from Slovenia, Malta, Latvia, Estonia and Croatia was held. The goal of the meeting was to coordinate activities of the prePLAY program implementation during 2016.
- ▶ February 23 and 24 – an international workshop organized by WADA, iNADO and the German NADO titled ‘Training course on Information Gathering and Intelligence Sharing’ was held in Bonn. The purpose of the workshop was to educate anti-doping organizations on conducting investigations related to doping in sport.
- ▶ On March 13, 2106, the annual iNADO symposium was held in Lausanne, Switzerland. Various preolympic anti-doping programs were discussed at the meeting. The prePLAY educational program through various forms of peer learning among youth received a high quality grade. One of the topics at the meeting was the safety of facilities and flow of information in anti-doping organizations.
- ▶ 12th annual WADA symposium was held in Lausanne, Switzerland, March 14 - 16, 2016. The implementation of a new anti-doping code was considered, WADA guidelines for anti-doping activities in major sport events were presented, strategies of doping prevention through education were discussed, recommendations for improvement of the Athlete Biological Passport were made, and a new ADAMS draft was presented.
- ▶ Head of the CITA Anti-Doping Department, Prim. Zoran Manojlović, MD-PhD, gave a lecture on April 15, 2016 on the topic of doping in the first module (drug crime) within the “Partnership for education” program at the Police Academy intended for police officers and state attorneys from Albania, Bosnia and Hercegovina, Montenegro, Kosovo, Macedonia, Slovenia and Serbia. Aside from American and Croatian experts, lecturers from Great Britain, France and Austria participated in the event.
- ▶ iNADO CEO Joseph de Pencier i iNADO Operations Manager Mathias Merschhemke visited the Croatian Institute for Toxicology and Anti-Doping (CITA) on April 26 and 27, 2016. During their visit, a meeting at the Ministry of health was held, on the topic of establishing an autonomous and independent anti-doping organization, and supervision of testing activities within the quality assessment system was performed.
- ▶ The 44th meeting of the Council of Europe monitoring group was held in Strasbourg on May 3, 2106. The proposal of the guidelines for anti-doping education to higher education institutions and proposal for the exchange of information between public institutions and anti-doping organizations in the fight against doping were adopted. The monitoring group was informed Croatia is participating in the program for surveillance of violent behavior of spectators at sport events.
- ▶ The 35th meeting of the Council of Europe ad hoc Committee for WADA (CAHAMA), May 4, 2016, Strasbourg. The position of European representatives at the meeting of the executive and foundation WADA committee held on May 11 and 12 in Montreal, Canada, was considered, related to establishing a unified and independent body in charge of testing and results management for international sports federations was considered.



► On May 21, 2016, the Second Congress on Prevention of Doping in Sport was held in Belgrade (Serbia). The special topic of this year's congress was "Food as doping", i.e. all of the permissible substances which can contribute to an improved athletic performance, but are not prohibited. The significance of mental training and allowed methods in prevention and

treatment of sport injuries was also discussed. Head of the CITA Anti-Doping Department gave a lecture on proceedings before the CITA disciplinary bodies.

► The meeting of the national anti-doping organizations of Austria, Slovenia and Croatia was held in Zagreb on June 7, 2016. The possibility of a better regional cooperation between these organizations and the most important issues of the anti-doping movement in the world from the aspect of our organizations was discussed.

► The EU anti-doping conference was held on June 15, 2106 in the Europa Building in Amsterdam, during the Dutch presidency of the EU. The theme of the conference included the most important issues of further effective implementation of the fight against doping.

► A final prePLAY meeting was held in Bled (Slovenia) on October 21 - 24, 2016. All countries involved in the prePLAY program actively participated in the preparation and presentation of implemented activities during the complete project. Beside the team members, 10 anti-doping ambassadors from each country were included in the program. This meeting concluded the educational activities through anti-doping ambassadors in the project.

► The 45th meeting of the Council of Europe monitoring group in Kiev (Ukraine) on November 7, 2106. The delegates called for a revision of the Convention of the Council of Europe. It needs revision on the grounds of the values it promotes, which are less empathized by the Code and the UNESCO Convention. The recommendation of the correct conduct of anti-doping disciplinary proceedings was adopted. The proposal for a new annual questionnaire of the Council of Europe, which will be shorter and simpler, was accepted.

► The 37th meeting of the Council of Europe ad hoc Committee for WADA (CAHAMA) was held in Kiev (Ukraine) on November 8, 2016. The points of view with WADA representatives were exchanged. The proposal to increase the WADA budget in 2017 for 3% was accepted, and the proposal to participate in the expenses for representatives in WADA bodies was rejected. The proposal for a compliance-monitoring program was accepted, provided the criteria for the national anti-doping organizations and international sport federations are equalized.

► iNADO ABP 2016 conference was held in Newmarket (UK) on November 16 and 17, 2016. The purpose of the conference was to exchange experience related to the implementation and work with the Athlete Biological Passport (ABP). Around 80 participants attended the conference – organizers (iNADO), numerous national anti-doping organizations, representatives of international sports federations, laboratories, and pharmaceutical industry, WADA, IOC and IPC. All organizations included in the anti-doping programs are encouraged to introduce ABP into their program, which will become mandatory in 2018.

► In Newmarket (UK), a meeting of the Advisory Group on Science (T-DO SCI) was held on November 17, 2016. The issue of Meldionium and other issues related to the adoption of an international standard "List of prohibited substances in sport" were discussed.

► The Seibersdorf Laboratory organized the annual meeting of anti-doping agencies. The meeting took place on November 28 and 27, 2106. The main topics at the meeting were the current anti-doping issues, such as the new International Standard for Testing and Investigations (comes into force on January 1, 2017), the 2017 Prohibited List, the ABP implementation, practical aspects related to the organization of the Athlete Passport Management Unit.

During 2016, the Croatian Institute for Toxicology and Anti-Doping implemented all planned activities of the prePLAY project within the Erasmus Plus program. A total of 27 educational activities (19 Athlete Outreach events, five lectures, two radio and one TV show) were implemented during 2015 and 2016, and with this the set goal of at least 20 activities per country was achieved. The holder and coordinator of the prePLAY project

was the Slovenian Anti-Doping Organization (SLOADA). Beside Croatia and project holder Slovenia, national anti-doping organizations from Estonia, Latvia and Malta participated in the project. iNADO and an independent observer from Germany were involved in the project as well. The said project, which started on January 1, 2015 and lasted two years i.e. until December 31, 2016, implemented an anti-doping campaign through educated youth, the prePLAY ambassadors, as bearers of the educational activities.

The main goal of the „prePLAY“ project was to create a transnational network of young athletes who were educated in the area of anti-doping and acted as anti-doping ambassadors for the fight against doping in sport. In this way, Croatia actively participated in an internationally accepted concept of need to disseminate the anti-doping message to younger age groups (elementary and high schools, sport clubs). The special characteristic of the project was emphasized by the role of the sports ambassadors, young people interested in clean sport, who passed the anti-doping message to people of their generation. The most important activities in the reporting period were Athlete Outreach events, lectures and media campaign. During this reporting period, seventeen (17) Athlete Outreach events and five (5) lectures were held within the prePLAY project, and an intensive media anti-doping campaign through radio, television, print and online media was implemented.

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We have participated in several webinars organized by iNADO related to testing.

In 2016, the cooperation with the Agency for Anti-doping control of Bosnia and Herzegovina under the Cooperation agreement signed in 2012 continued. The cooperation with the Slovenian Anti-Doping Agency (SLOADA) continued as well by participating in the prePLAY program. The cooperation with iNADO was intensified by including this organization in the initiative to change the status of the Croatian national anti-doping agency and the program of the testing and sample collection quality assessment system. iNADO issued a quality certificate to CITA, valid until July 31, 2018.

CITA prepared an educational program in support of setting the basis for an institutional fight against doping in sport in Kosovo that was supposed to take place in February 2016, but the planned activity was not implemented due to unavailability of the delegation from Kosovo.

## 5. THERAPEUTIC USE EXEMPTIONS

The provisions of the new International Standard for Therapeutic Use Exemptions and guidelines adopted at the annual meeting in 2015 have been enforced since January 2016.

In 2016, thirteen (13) applications for Therapeutic Use Exemptions (TUE) were received. In nine (9) of these the criteria for consideration by the TUE Committee were met, and in four (4) cases the criteria were not met.

### TUE COMMITTEE SESSIONS

In the same period, nine (9) sessions of the TUE Committee were held in order to decide on the applications for therapeutic use exemptions. In all individual cases, the TUE Committee granted the therapeutic use exemptions.

### GRANTED TUEs

Overall, two (2) prospective and seven (7) retroactive therapeutic use exemptions were granted.

Table with granted TUEs

| ACTIVE SUBSTANCE           | DIAGNOSIS                        | TUE TYPE |
|----------------------------|----------------------------------|----------|
| methylprednisolone acetate | Inguinal Pain Syndrome           | RA       |
| dexamethasone              | Back Pain                        | RA       |
| dexamethasone              | Allergic Reaction                | RA       |
| hydrocortisone             | Allergic Reaction                | RA       |
| dexamethasone              | Allergic Reaction                | RA       |
| somatropin                 | Hypopituitary Growth Retardation | A        |
| methylprednisolone         | Allergic Reaction                | RA       |
| dexamethasone              | Urticaria                        | RA       |
| indapamide                 | Arterial Hypertension            | A        |

RA – retroactively granted

TUE A – prospectively granted TUE

### DENIED TUEs

There were no denied TUE applications.

### APPLICATIONS MANAGED WITHOUT A TUE COMMITTEE SESSION

Four (4) TUE applications were submitted where the criteria for consideration by a TUE Committee were not met.

In two cases the reason was the lack of CITA's jurisdiction (the athletes were international-level athletes for whom the international federation is responsible), and in the other two cases the need for a TUE did not exist, given the medication and the method of its administration.

These applications were managed administratively without a Committee session.

Table with unfounded applications for TUE

| ACTIVE SUBSTANCE           | DIAGNOSIS  | REASON                |
|----------------------------|--|-----------------------|
| methylprednisolone         | Urticaria  | international ranking |
| dexamethasone              | Distension of muscle (m. adductor femoris)         | topical drug          |
| dexamethasone              | Extraction of impacted tooth                       | international ranking |
| methylprednisolone acetate | Recurrent acute inflammation of the plantar fascia | topical drug          |

The work of the TUE Committee was performed in accordance with the Rules on granting therapeutic use exemptions. All TUE Committee decisions from the reporting period are entered into the ADAMS system and in this way made available to WADA and other authorized organizations. In this way, the transparency of the therapeutic use exemptions issuance procedure and the work of the TUE Committee was ensured.

The annual meeting of the TUE Committee was held on December 2016, with a purpose of presenting the work of the Committee during the year and getting acquainted with the 2017 Prohibited List.

## 6. MEDICINE AND SCIENCE

In 2016, the development of the method for detection of erythropoietin and its derivatives, which are hard to detect by using classic methods, continued. The benefits of this approach could include faster and cheaper testing for prohibited use erythropoietin derivatives. Within the development of the method, three scientific papers were published in the stated magazines (SCI, Index Copernicus):

- ▶ Štambuk, N, Konjevoda, P, Manojlović, Z. Miyazawa-Jernigan Contact Potentials and Carter-Wolfenden Vapor-to-Cyclohexane and Water-to-Cyclohexane Scales as Parameters for Calculating Amino Acid Pair Distances. In: IWBBIO 2016, Lecture Notes in Bioinformatics, vol. 9656. Ortuno F. and Rojas I. (Eds.) Bioinformatics and Biomedical Engineering, Springer International Publishing Switzerland, 2016: 385-365
- ▶ Štambuk, N, Konjevoda, P, Manojlović, Z, Novak-Kujundžić, R. The Use of the Miyazawa-Jernigan Residue Contact Potential in Analyses of Molecular Interaction and Recognition with Complementary Peptides. In: IWBBIO 2016, Lecture Notes in Bioinformatics, vol. 9656. Ortuno F. and Rojas I. (Eds.) Bioinformatics and Biomedical Engineering, Springer International Publishing Switzerland 2016:91-102
- ▶ Štambuk N, Konjevoda P, Manojlovic Z, Stambuk A, Turcic P, Gotovac N. Synthetic Proteins designed using ternary coding patterns: from nucleotide information to protein structure, 21 function and music. In: Symmetry: Culture and Science, Vol. 27, No.2, 2016. Darvas, György (ur.). Budapest, Hungary: Symmetrion, 2016: 163-171

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The Advisory center continued to provide services to athletes in competitive and recreational sport, medical staff in sport associations and clubs, specialists in occupational medicine and sport, doctors from other specialties involved in the treatment of athletes, sport professionals and other people related to the issues of drug administration in sport. The services include:

- ▶ advice on doping in sport,
- ▶ advice on the pharmacodynamics and pharmacokinetic properties of a drug in relation to sport activity,
- ▶ rationalization of existing pharmacotherapy,
- ▶ addressing the side effects of drugs,
- ▶ addressing resistance to drug therapy, advice on drug hypersensitivity,
- ▶ therapy individualization with a possible need of CYP phenotype and genotype determination,
- ▶ addressing irrational polypharmacy,
- ▶ recommending a diagnostic procedure in terms of reevaluating an existing diagnosis,
- ▶ cooperation with doctors of other profiles regarding pharmacotherapy of athletes.

In 2016, the Advisory center for anti-doping and rational pharmacotherapy carried out numerous consultations and answered questions of sport doctors, athletes and coaches, relating to the administration of drugs and dietary supplements. The most common questions referred to the safety of using various dietary supplements, where manufacturers' sites, data bases of institutes testing the products such as the Cologne Institute (germ. Kölner Liste), USADA, AIS, Consumer Lab and others were used. The questions about drugs included the administration of drugs such as antibiotics, inhaled glucocorticoids, thyroid replacement hormones, progestogens, analgesics, antihistamines, antihypertensive agents, proton pump

inhibitors, antiepileptics, antidepressants, topical decongestants, and ephedrine, which has been conditionally restricted as a stimulant, and glucocorticoids, human chorionic gonadotrophin and cannabis. Several supplement manufacturers made inquiries about the possibility of testing their products for the prohibited substances.

The following scientific paper was published in the proceedings of the II. Second Congress on Prevention of Doping in Sport held in Belgrade on May 21. 2016:

- ▶ Manojlović, Z, Barišić, V: Overview of Proceedings before the Disciplinary Bodies of the Croatian Institute for Toxicology and Anti-Doping (2012-2016) In: Second Congress on Prevention of Doping in Sport, Belgrade, Serbia, 2016. Program and Abstract Book, 2016: 77-79.

## **7. FACILITIES AND EQUIPMENT MAINTENANCE**

The necessary IT equipment was acquired in 2016.



CROATIAN **NO!** TO **DOPING**

