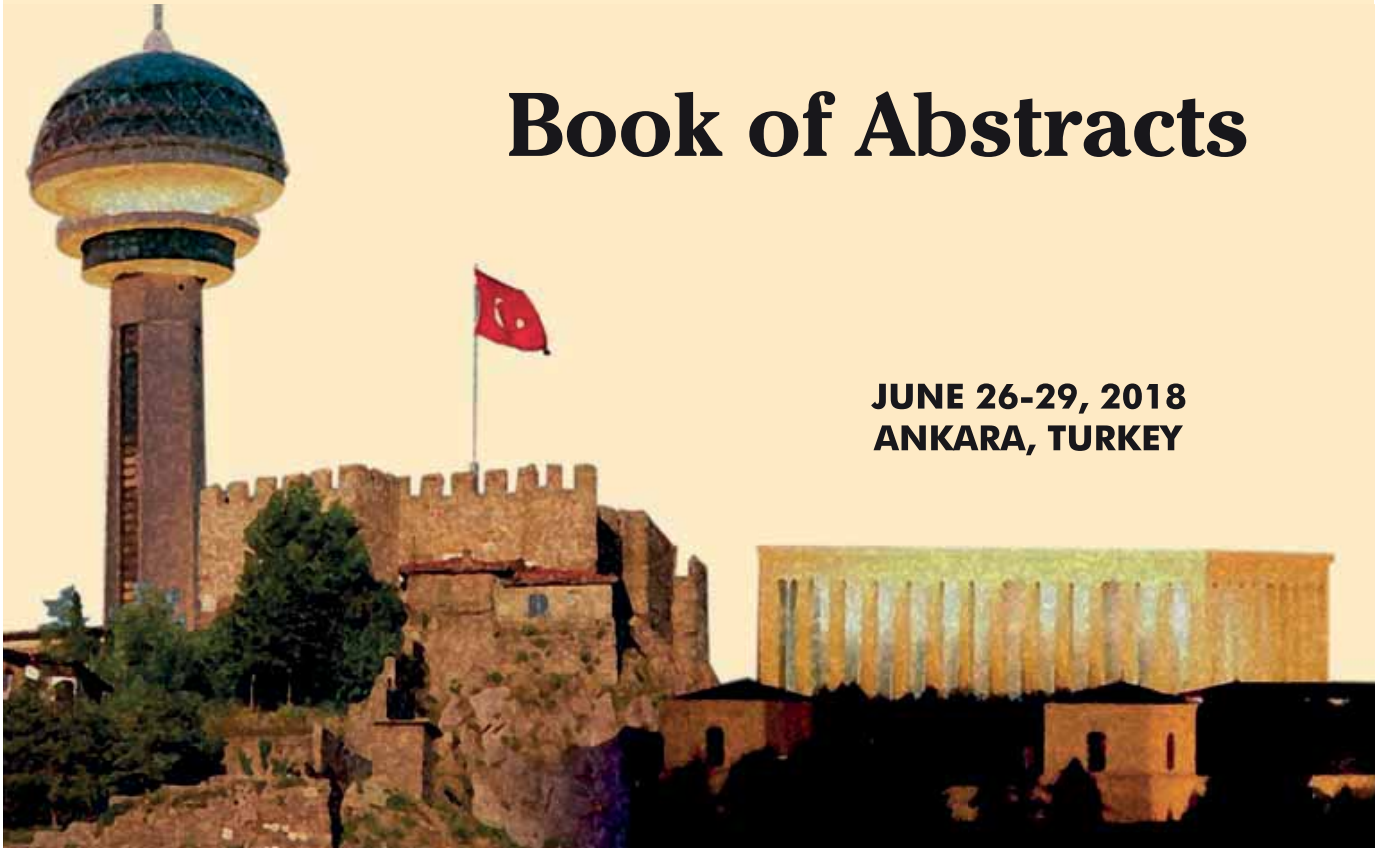
ANKARA UNIVERSITY
FACULTY OF PHARMACY

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Book of Abstracts



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were prepared using complete medium. Maximum DMSO concentration applied to cells was 0.28 %. Cell viability was evaluated by MTT assay after 24 h and 48 h incubation with LTG dilutions.

RESULTS:

Cell viability of L929 cells after 24 h incubation were 99.4, 104.9, 106.1, 130.1, 123.9, 116.5, 121.3 % for 2, 4, 6, 8,10, 12, 14 µg/mL of LTG concentrations, respectively. After 48 h incubation cell viability values of the L929 cells were determined as 95.0, 102.5, 99.8, 149.3,221.2, 156.9 and 161.8 % at the same concentrations.

CONCLUSIONS:

It was found that LTG had proliferative effects on the L929 cells at both low and high concentrations. As a result of this study, we may conclude that LTG does not have a cytotoxic effect on the L929 cell line.

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P-309: POLY-LACTIC-CO-GLYCOLIC ACID NANOPARTICLES CONTAINING KETOPROFEN LYSINE: PREPARATION AND CHARACTERIZATION

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INTRODUCTION:

Ketoprofen lysine (KL), the water soluble lysine salt of Ketoprofen, is one of the most widely used non-steroidal anti-inflammatory drugs (NSAIDs) in the symptomatic treatment of various chronic inflammatory diseases for its analgesic efficacy (1). However, due to its short half-life of 1–2 h, a multiple dose regimen is required therefore, KL is an ideal candidate for the development of controlled drug delivery systems which are able to release the drug at a desired rate and in desired amount (1). PLGA exhibits many of the ideal properties of a nanoscale delivery system, providing long term release of the encapsulated agent and degrading into the biocompatible products of lactic and glycolic acid (2). According to the aim of this study, KL-containing PLGA nanoparticles were prepared by spray drying method (2).

MATERIALS AND METHODS:

KL is kind gift from Berko İlaç (Istanbul/Turkey). PLGA (Resomer® RG 504, PLGA 50:50) was obtained from Sigma(Germany). Formulations were prepared by spray drying method with Büchi B-290 spray dryer (Switzerland). Particle size (PS), poly dispersity index (PDI) and zeta potential (ZP) measurements were performed on freshly prepared samples using a Malvern analyzer. The entrapment efficiency (EE%) and dissolution study of each formulation was performed with HPLC. In vitro release study of the formulations was investigated over 15 days and performed in phosphate buffer (pH 7.4). Results:

Figure 1. In vitro dissolution profile of formulations and pure KL

Table 1. Result of PS, PDI, ZP and EE% (n=3)

CONCLUSIONS:

According to the characterization and dissolution studies we can conclude that this polymeric system seems to be promising for controlled and sustained delivery of KL for pain treatment.

ACKNOWLEDGEMENTS:

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Figure 1. In vitro dissolution profile of formulations and pure KL

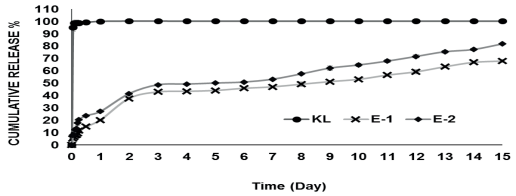


Table 1. Result of PS, PDI, ZP and EE% (n=3)

Code	Particle Size	PDI	Zeta	%EE
S-Blank	490.3 ± 2.2	0,27± 002	-28±0.21	-
S-1	512.6 ± 5.2	0.43±0.03	-27±1.13	%78.789±0.953
S-2	518.3 ± 3.1	0.44±0.02	-20±1.21	%59.634±1.624

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Ortak, H. 226, 227, 246, 247
Oruc Emre, EE. 357, 358, 359, 360, 371, 372
Osmancevic, S. 280
Osmaniye, D. 219, 363, 364, 369, 403, 408, 410, 411
Oszmiański, J. 126
Otles, S. 266
Ozadali Sari, K. 98
Ozakar, E. 318
Ozakca I 59
Ozalp Y. 311
Ozansoy, G. 195
Ozates, NP. 109
Ozatik O. 213
Ozay, Y. 97
Ozbay, E. 333
Ozbay, N. 294, 298
Ozbay, O. 435
Ozbek, B. 415
Ozbek, H. 140, 163, 181
Ozbey, S. 355
Ozbilgin, S. 149, 162, 178, 185
Ozcan, S. 76, 229, 259, 265
Ozcelikay, G. 245
Ozcelikay, G. 51, 221, 222, 223, 224, 226
Ozcelikay, T. 279
Ozcelik, H. 103
Ozcinar, O. 177
Ozdal, ZD. 299
Ozdemir, A. 104, 353, 364, 370, 372, 373, 387, 393
Ozdemir, I. 401, 402
Ozdemir, N. 41, 42, 53, 83, 88, 198, 200, 203, 209, 328
Ozdemir, Ozge. 330
Ozdemir, Z. 119
Ozden Yilmaz, T. 157, 160
Ozek, G. 150
Ozel, A. 334
Ozenver N. 40, 173
Ozer, O. 46, 304
Ozet, G. 38
Ozgenc, E. 29, 93
Ozgen, ZE. 199
Ozhan, G. 70, 99, 112, 315 ,340
Ozkan Ariksoysal, D. 119
Ozkan B. 293
Ozkan, CK. 65, 284, 288, 332
Ozkan, E. 88, 273
Ozkan Hasanoglu, E. 339, 422
Ozkan, SA. 22, 141, 231, 245, 249, 251, 252, 253, 260, 262, 269, 270, 275, 279, 288
Ozkan, T. 418
Ozkan, Y. 65, 122, 175, 176, 284, 280, 288, 332
Ozkan Yilmaz, F. 343
Ozkaya, AR. 122, 237
Ozkay Demir, U. 198, 220
Ozkay, Y. 259, 363, 364, 369, 374, 381, 403, 408, 410, 411
Ozkemahli, G. 101, 416, 425
Ozkul C. 139
Ozler, MA. 360, 361
Ozluer Hunt, A. 343
Ozmen, N. 112, 289
Ozpolat, B 7
Ozsoy, N. 179
Oztanir, M.N. 39
Oztas, E. 70, 99, 112, 340
Ozturk AA. 281, 282, 329
Ozturk, AA. 296, 302, 315, 330
Ozturk B. 335
Ozturk, C. 267, 289
Ozturk Ceylan, O. 396
Ozturk, E. 35
Ozturk, G. 115, 148, 160, 242, 244
Ozturk, I. 138, 177
Ozturk, K. 260
Ozturk, M. 358, 360, 361
Oztürk, N. 295
Ozturk, O. 9
Ozturk S. 39
Oz, UC. 330
Ozupek, B. 189
Ozyazici, T. 406
Ozyurek, B. 228, 267
Ozyurt, VH. 266

P

Palabiyik, IM 69, 79, 250
Palaska, E. 268
Parlar, A. 49
Parlar, S. 100
Parvizi Khosroshahi, S. 302
Payze, U. 328
Pedrero, M. 12
Pehlic, E. 414
Pehlivan, M. 49
Pekacar S. 189
Pekcan, AN. 87
Pekel, A. 350, 351
Pekel Bayramgil, N. 325, 326
Peraica M. 16
Perk, BO. 418
Pezik, E. 295
Pilevneli, AD. 166
Pilipovic, S. 280
Pilla, V. 21
Pingarrón, J.M. 12
Pirincci, Y. 409
Polat, EC. 200, 424
Polat, K. 309
Popielarz Brzezińska M. 307
Povedano, E. 12
Poyraz, S. 346, 397, 398, 399
Pratiwi, MY. 83
Protsenko, O. 105

Q

Qader, M. 168

R

Ràfols, C. 76
Rahman, AFM. 85
Rahou, I. 44, 258
Ramadan, SS. 349
Ratih, Asmari, M. 264
Ražić, S. 23, 94
Recber, T. 272
Reis, R. 103
Rencber, S. 68, 319
Renda, G. 161, 214
Rivas, G. 11
Ruiz-Valdepeñas Montiel, V. 12



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