

Katedra za socialno farmacijo
Fakulteta za farmacijo
Univerza v Ljubljani

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Fakulteta za farmacijo



Izbrana poglavja iz biomedicinske informatike

Systematično iskanje informacij in vrednotenje virov

IZZIV

- Poiščite informacijo o specifičnosti in občutljivosti testa ELISA za določanje koncentracije amiloida beta pri diagnozi Alzheimerjeve bolezni.

IZZIV

- „more than 30 studies, with both sensitivity and specificity exceeding 80 % in most of the studies“

- Funke SA, Birkmann E, Willbold D. Detection of Amyloid-beta aggregates in body fluids: a suitable method for early diagnosis of Alzheimer's disease? Curr Alzheimer Res. 2009 Jun;6(3):285-9.

OSNOVNI POJMI

➤ PODATEK

- podatek je katerokoli zabeleženo dejstvo
- podatek nima pomena

➤ INFORMACIJA

- informacija so podatki, ki so obdelani tako, da so dobili pomen (Boci et al, 1999)
- informacija so podatki, ki so tako oblikovani, da imajo pomen in so koristni uporabnikom (uporabni za ljudi) (Laudon & Laudon, 2000)
- kakovost informacije
 - Točnost, popolnost, relevantnost, dosegljivost, preverljivost, dostopnost, varnost

ISKANJE PODATKOV / INFORMACIJ



- INTUITIVNO
- SISTEMATIČNO Z UPOŠTEVANJEM KREDIBILNOSTI VIROV

- IMENIK
- ISKALNIK

BAZE PODATKOV / INFORMACIJ

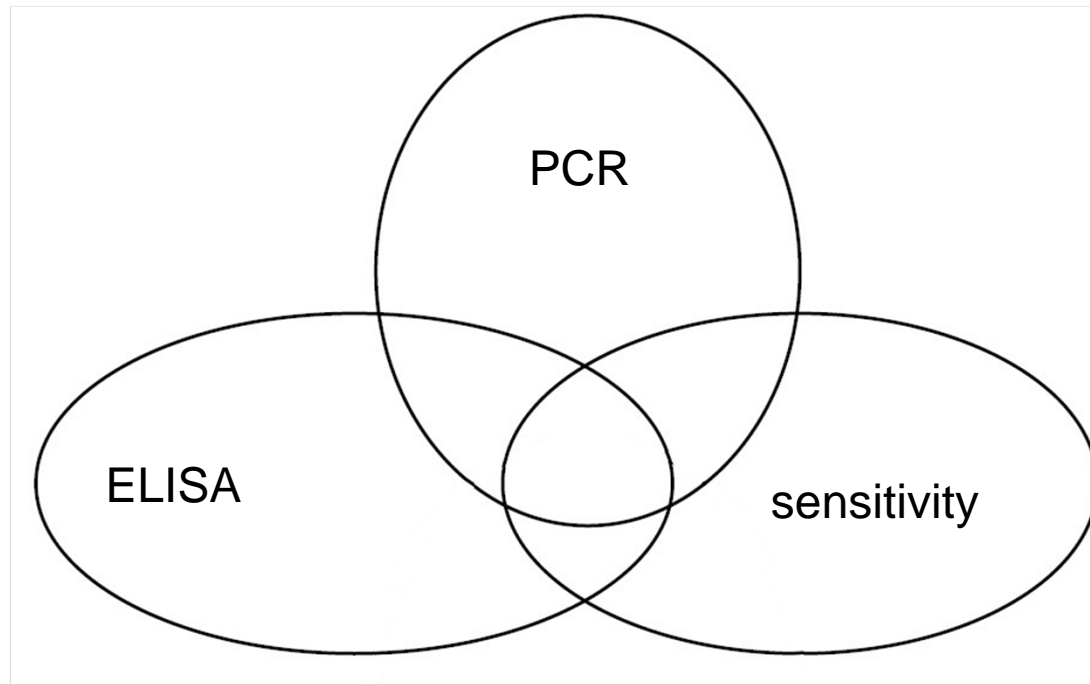
- Zbirke podatkov:
 - Faktografske
 - Bibliografske
 - Tekstovne
- S katerimi ste že delali?
- Kakšne baze bi vam koristile pri vsakdanjem delu?

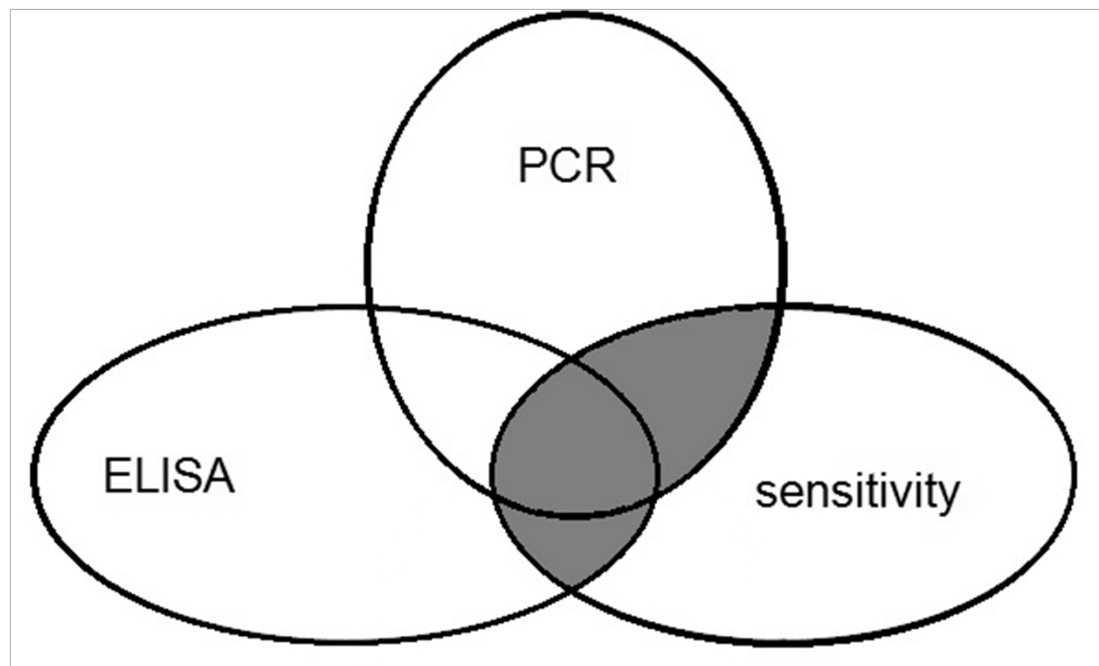
ISKALNI PROFIL



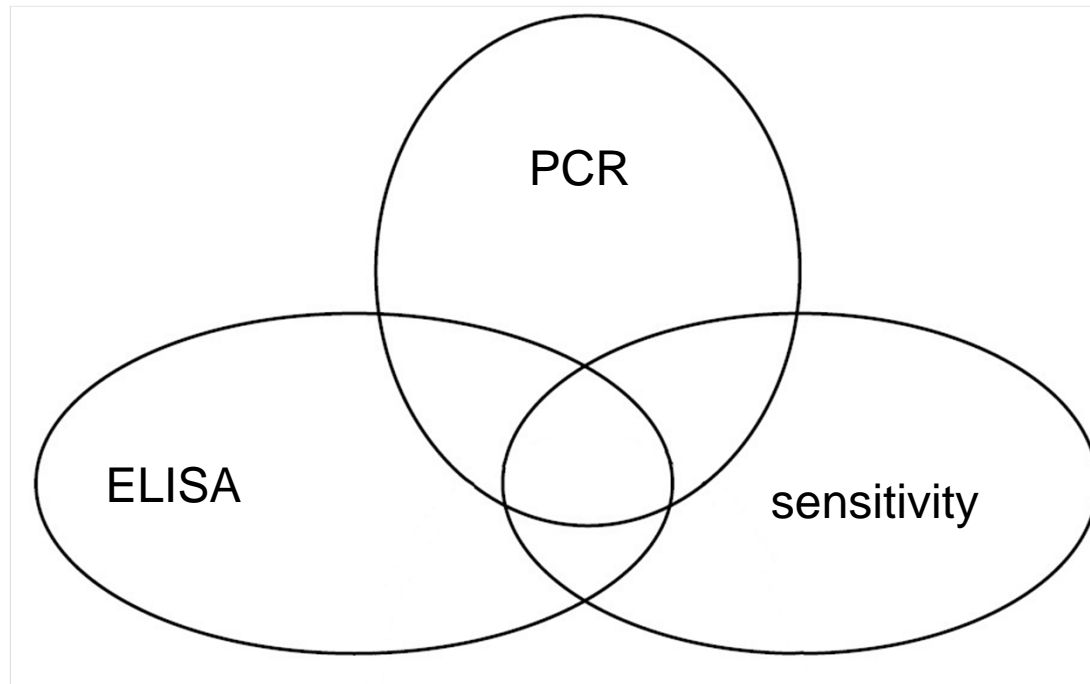
- Deskriptorji (ključne besede)
- Logični operatorji (AND, OR, NOT)
- Relacijski operatorji ($=$, $<$, $>$)
- "Jokerji" (*, ?)

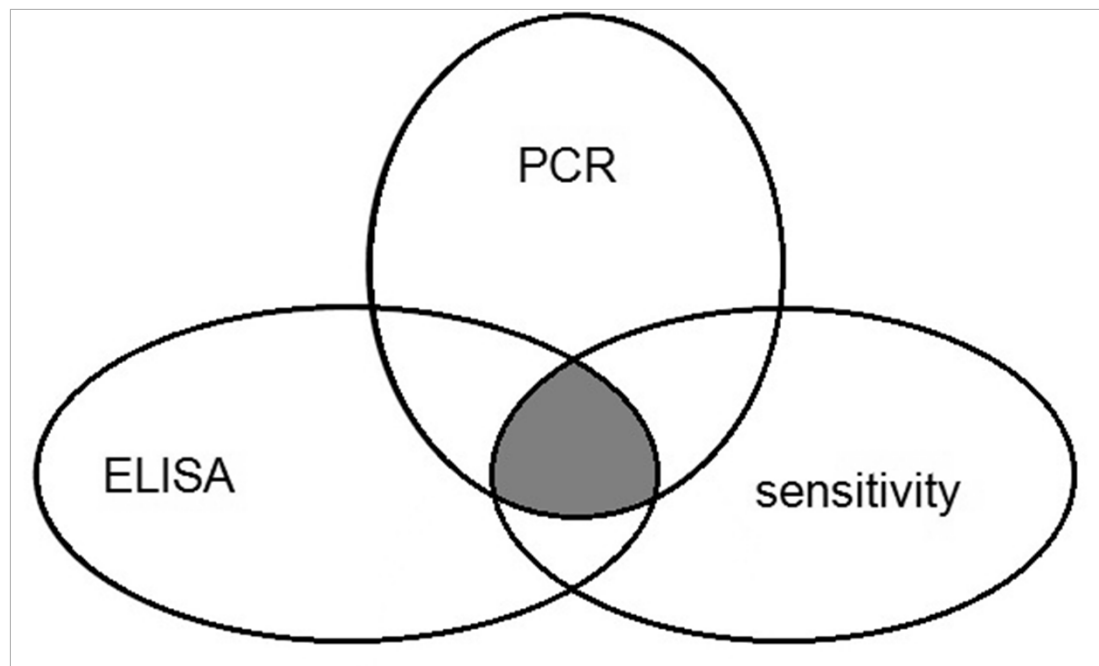
➤ (ELISA OR PCR) AND sensitivity



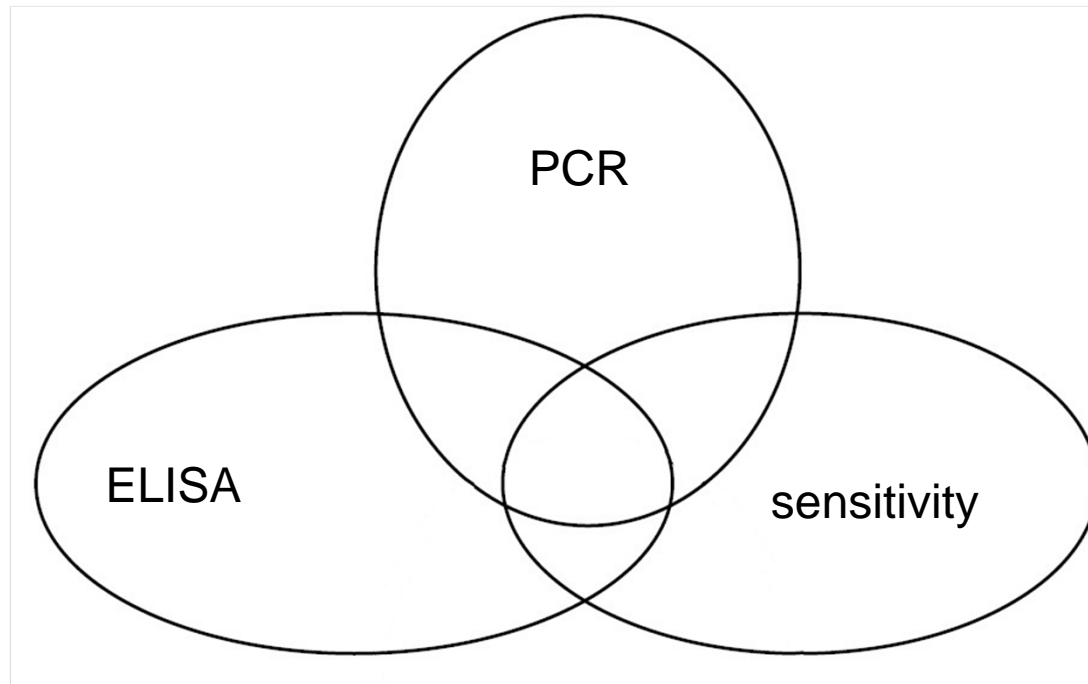


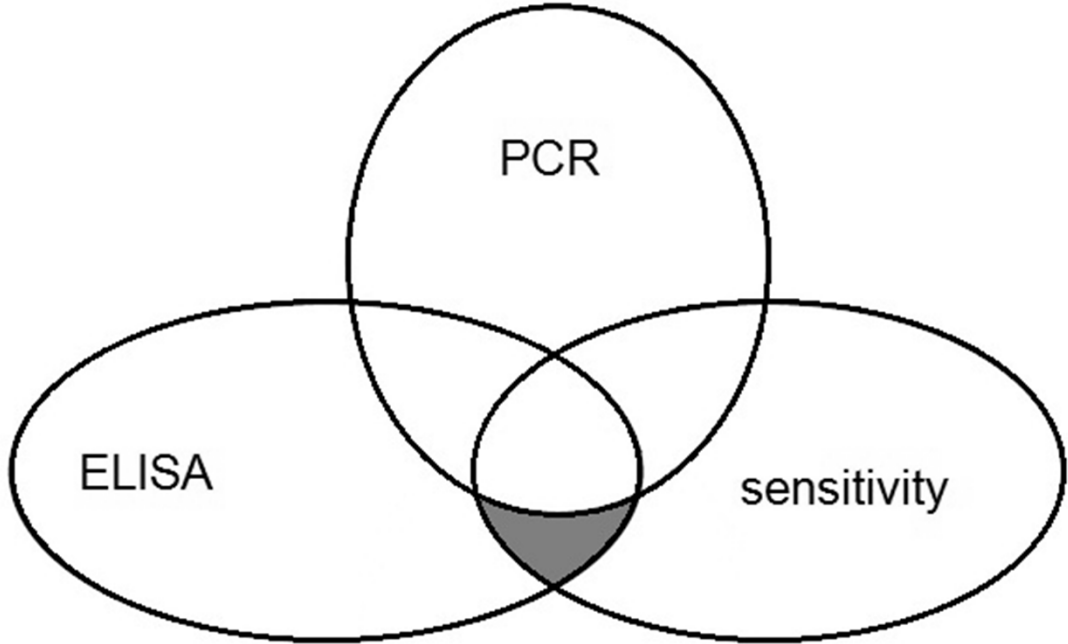
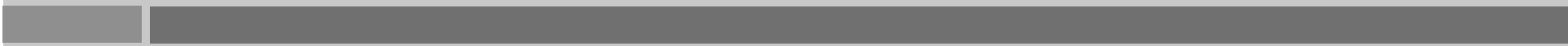
➤ (ELISA AND PCR) AND sensitivity



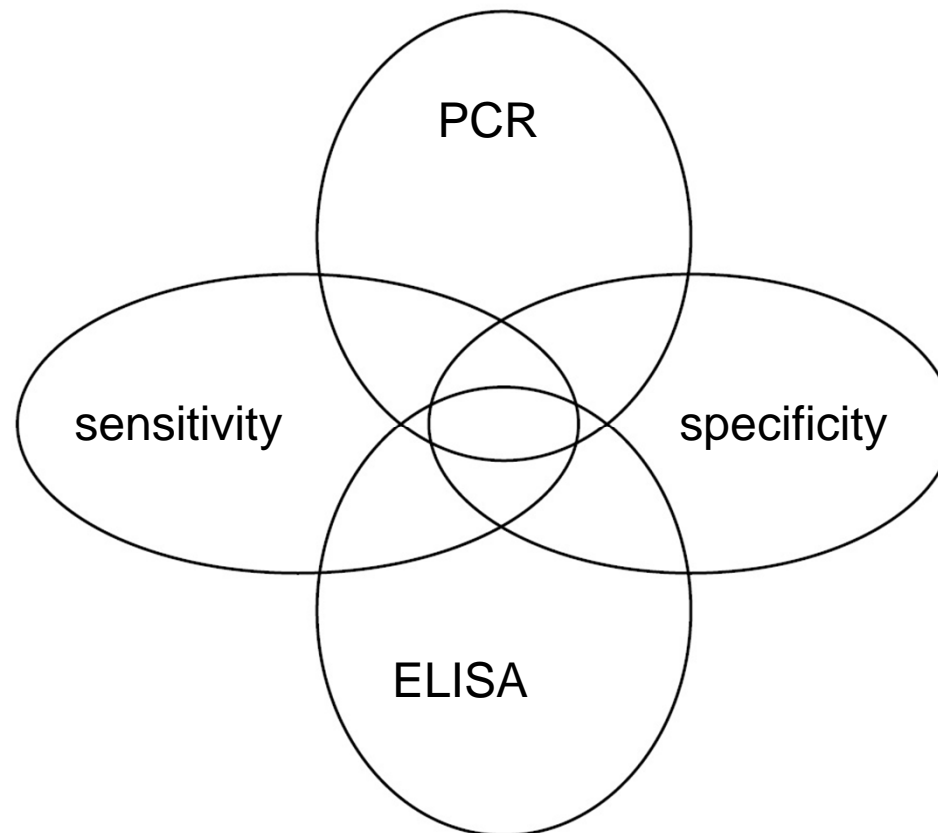


➤ (ELISA NOT PCR) AND sensitivity

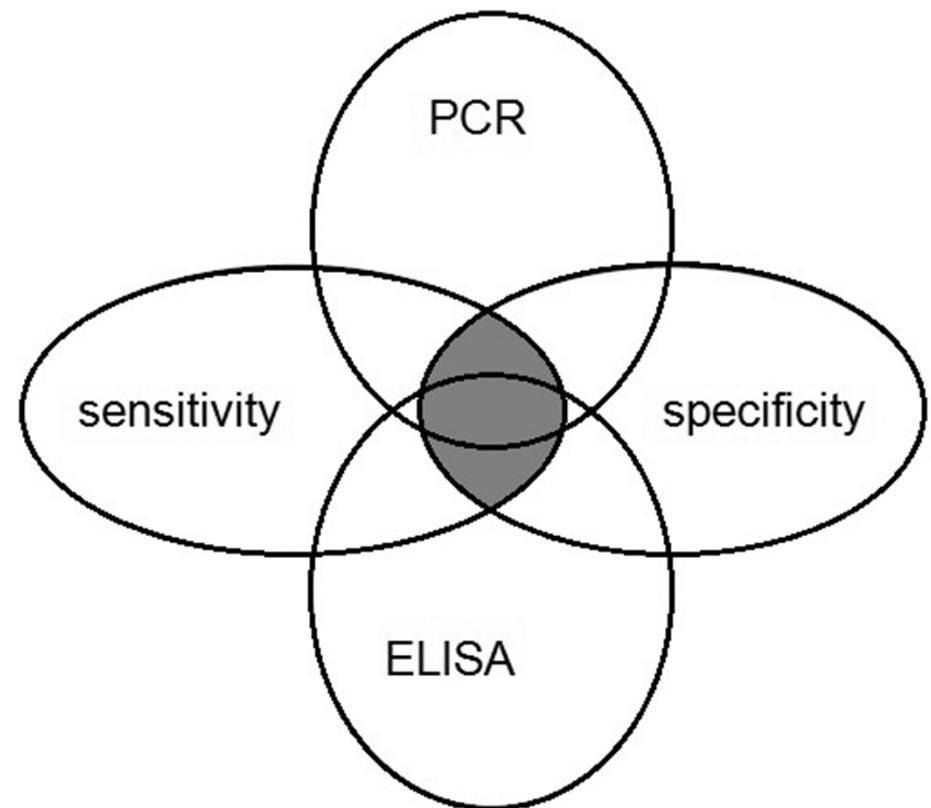
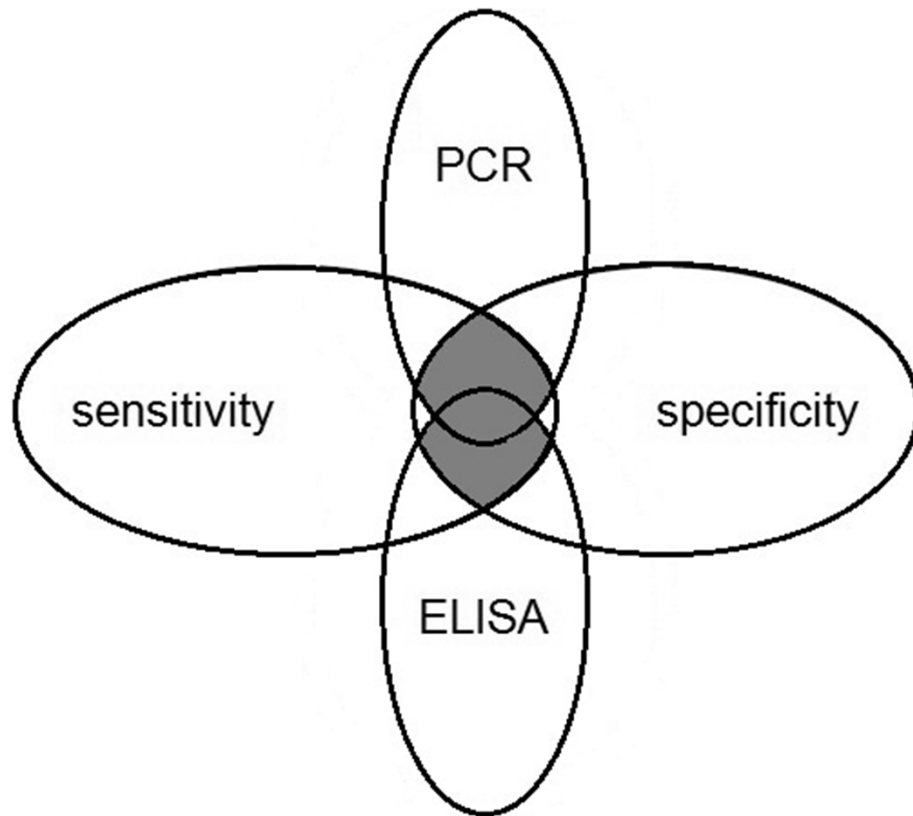




-
- (ELISA OR PCR) AND (sensitivity AND specificity)



-
- (ELISA OR PCR) AND (sensitivity AND specificity)



ISKANJE INFORMACIJ

- Želimo informacijo o določanju fluvastatina v plazmi z ELISA metodo?
- Sestavite iskalni profil!

ISKANJE INFORMACIJ



- Fluvastatin AND ELISA
- Fluvastatin AND ELISA AND (determination OR assay) AND ("in plasma")

Darwish IA, Al-Obaid AR, Al-Malaq HA. Novel enzyme-linked immunosorbent assay for determination of fluvastatin in plasma at picogram level. *Talanta*. 2009 Nov 15;80(1):179-83. Epub 2009 Jul 1.

Zbirka MEDLINE

- vsebuje najpomembnejše informacije o medicini, zdravstveni negi, zobozdravstvu, veterini, zdravstvenem sistemu, predklinični znanosti in drugem
- več kot 4800 trenutnih biomedicinskih revij
- narodna medicinska knjižnica (U.S. National Library of Medicine)
- PubMed



BAZE PODATKOV in SERVISI

- Web of Science®
- ProQuest
- EBSCO host
- ScienceDirect
 - MEDLINE (PubMed)

- IZUM
 - metaiskalnik
- COBISS
 - Digitalna knjižnica UniLJ

ISKANJE INFORMACIJ

- Darwish IA, Al-Obaid AR, Al-Malaq HA. Novel enzyme-linked immunosorbent assay for determination of fluvastatin in plasma at picogram level. *Talanta*. 2009 Nov 15;80(1):179-83. Epub 2009 Jul 1.
- V katerih slovenskih knjižnicah bi lahko našli omenjen članek?
- Katere spletne strani vam omogočajo dostop do elektronske verzije članka?

ISKANJE INFORMACIJ

- Koliko člankov v podatkovni zbirki MEDLINE je bilo objavljenih na temo:
občutljivost in specifičnost PCR testa za HIV
- Koliko je bilo preglednih člankov?
- Koliko jih je bilo objavljenih v letu 2007?

ISKANJE INFORMACIJ

sensitivity AND specificity AND PCR AND HIV - PubMed result - Windows Internet Explorer

http://www.ncbi.nlm.nih.gov/pubmed

Search: PubMed
(sensitivity AND specificity AND PCR AND HIV) Search Clear

Display Settings Summary, 20 per page, Sorted by Recently Added

Results: 1 to 20 of 39

Send to Filter your results:
All (904)
Review (39)
Free Full Text (251)

1. [Urine for the diagnosis of tuberculosis: current approaches, clinical applicability, and new developments.](#)
Peter J, Green C, Hoelscher M, Mwaba P, Zumla A, Dheda K.
Curr Opin Pulm Med. 2010 May;16(3):262-70. Review.
PMID: 20375787 [PubMed - indexed for MEDLINE]
[Related citations](#)

2. [\[A review on new commercial methods for HIV-1 and HCV viral load determinations\]](#)
Aguilera A, Alba JM, Lamas LM, Suárez ML, Galán JC.
Enferm Infecc Microbiol Clin. 2010 Jan;28 Suppl 1:62-7. Review. Spanish.
PMID: 20172426 [PubMed - indexed for MEDLINE]
[Related citations](#)

3. [Clinical use of polymerase chain reaction performed on peripheral blood and bone marrow samples for the diagnosis and monitoring of visceral leishmaniasis in HIV-infected and HIV-uninfected patients: a single-center, 8-year experience in Italy and review of the literature.](#)
Antinori S, Calattini S, Longhi E, Bestetti G, Piolini R, Magni C, Orlando G, Gramiccia M, Acquaviva V, Foschi A, Corvasce S, Colomba C, Titone L, Parravicini C, Cascio A, Corbellino M.
Clin Infect Dis. 2007 Jun 15;44(12):1602-10. Epub 2007 May 7. Review.
PMID: 17516404 [PubMed - indexed for MEDLINE]
[Related citations](#)

4. [The measurement of HIV-1 viral load in resource-limited settings: how and where?](#)
Rouet F, Rouzioux C.
Clin Lab. 2007;53(4):135-48. Review.
PMID: 17447049 [PubMed - indexed for MEDLINE]
[Related citations](#)

5. [Nucleic acid testing for viral burden and viral genotyping.](#)
Domati-Saad R, Scheuermann RH.
Clin Chim Acta. 2006 Jan;363(1-2):197-205. Epub 2005 Aug 11. Review.
PMID: 16008950 [PubMed - indexed for MEDLINE]

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Search details
("sensitivity and specificity"[MeSH Terms] OR ("sensitivity"[All Fields] AND "specificity"[All Fields]) OR "sensitivity and
Search See more...

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sensitivity AND specificity AND PCR AND HIV (904) PubMed
See more...

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ISKALNI PROFIL

- sensitivity AND specificity AND PCR AND HIV

- (sensitivity) OR (specificity) AND (rt-PCR or (real time PCR)) NOT (reverse transcriptase-PCR) AND (HIV test)

ISKANJE ČLANKOV

- Single tube competitive PCR for quantitation of CMV DNA in the blood of HIV+ and solid organ transplant patients.
- Hianik T et al. Detection of DNA hybridization on a liposome surface using ultrasound velocimetry and turbidimetry methods.
- Bayer EA. The Biochemical journal. 1989
- Comparison of commonly used assays for the detection of microalbuminuria. Review
- Journal of proteomics. 2010 Jan 3;73(3):456-65.
- Jin YX, Tang YH, Zeng S. Analysis of flurbiprofen, ketoprofen and etodolac enantiomers by pre-column derivatization RP-HPLC and application to drug-protein binding in human plasma. J Pharm Biomed Anal. 2008 Apr 14;46(5):953-8. Epub 2008 Feb 3.
- Turk N. Open Access in Medical Publishing. Zdrav Vestn 2010; 79: 638–642



ISKANJE ČLANKOV

- Chatellard P, Sahli R, Iten A, von Overbeck J, Meylan PR. Single tube competitive PCR for quantitation of CMV DNA in the blood of HIV+ and solid organ transplant patients. *J Virol Methods*. 1998 Apr;71(2):137-46.
- Hianik T, Rybar P, Andreev SY, Oretskaya TS, Vadgama P. Detection of DNA hybridization on a liposome surface using ultrasound velocimetry and turbidimetry methods. *Bioorg Med Chem Lett*. 2004 Aug 2;14(15):3897-900.
- Bayer EA, Ben-Hur H, Hiller Y, Wilchek M. Postsecretory modifications of streptavidin. *Biochem J*. 1989 Apr 15;259(2):369-76.
- Busby DE, Bakris GL. Comparison of commonly used assays for the detection of microalbuminuria. *J Clin Hypertens (Greenwich)*. 2004 Nov;6(11 Suppl 3):8-12. Review
- DOSTOPNA SAMO EL. VERZIJA
- van Gestel RA, van Solinge WW, van der Toorn HW, Rijksen G, Heck AJ, van Wijk R, Slijper M. Quantitative erythrocyte membrane proteome analysis with Blue-native/SDS PAGE. *J Proteomics*. 2010 Jan 3;73(3):456-65. Epub 2009 Sep 21.
- DOSTOPNA SAMO EL. VERZIJA
- Jin YX, Tang YH, Zeng S. Analysis of flurbiprofen, ketoprofen and etodolac enantiomers by pre-column derivatization RP-HPLC and application to drug-protein binding in human plasma. *J Pharm Biomed Anal*. 2008 Apr 14;46(5):953-8. Epub 2008 Feb 3.
- Turk N. Open Access in Medical Publishing. *Zdrav Vestn* 2010; 79: 638–642

CITRANOST

- JCR (Journal Citation Reports) je faktografska baza podatkov proizvajalca Thomson Reuters iz ZDA
- vsebuje podatke o faktorju vpliva (impact factor) za pomembnejše serijske publikacije iz svetovne produkcije
- v sistemu COBISS.SI so na voljo podatki od leta 1994 dalje

VREDNOTENJE INFORMACIJ

- Koliko člankov je bilo od leta 2005 objavljenih na temo imunofluorescenčne metode v povezavi z gripo?
- Koliko je bilo preglednih člankov?
- Koliko preglednih člankov ni v angleškem jeziku?
- Ugotovite, kateri izmed njih je bil objavljen v najbolj ugledni reviji (najvišji faktor odmevnosti).

VREDNOTENJE INFORMACIJ

- (((IFR or immunofluorescence) AND influenzae) AND "2005"[Publication Date] : "3000"[Publication Date])

VREDNOTENJE INFORMACIJ

- (((IFR or immunofluorescence) AND influenzae) AND "2005"[Publication Date] : "3000"[Publication Date])

- 1: Landry ML. Diagnostic tests for influenza infection. *Curr Opin Pediatr.* 2011 Feb;23(1):91-7.
- 2: Tebruegge M, Pantazidou A, Thorburn K, Riordan A, Round J, De Munter C, Walters S, Curtis N. Bacterial tracheitis: a multi-centre perspective. *Scand J Infect Dis.* 2009;41(8):548-57.
- 3: Petric M, Comanor L, Petti CA. Role of the laboratory in diagnosis of influenza during seasonal epidemics and potential pandemics. *J Infect Dis.* 2006 Nov 1;194 Suppl 2:S98-110.
- 4: Machała MK, Brydak LB. [Various sides of influenza, part I--structure, replication, changeability of influenza viruses, clinical course of the disease, immunological response and laboratory diagnostics]. *Pol Merkur Lekarski.* 2006 Sep;21(123):270-6. Review. Polish.
- 5: Dwyer DE, Smith DW, Catton MG, Barr IG. Laboratory diagnosis of human seasonal and pandemic influenza virus infection. *Med J Aust.* 2006 Nov 20;185(10 Suppl):S48-53.
- 6: Vega R. Rapid viral testing in the evaluation of the febrile infant and child. *Curr Opin Pediatr.* 2005 Jun;17(3):363-7.

VREDNOTENJE INFORMACIJ

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1: Landry ML. Diagnostic tests for influenza infection. *Curr Opin Pediatr.* 2011 Feb;23(1):91-7.

- FAKTOR VPLIVA (2010): 2,456

2: Tebruegge M, Pantazidou A, Thorburn K, Riordan A, Round J, De Munter C, Walters S, Curtis N. Bacterial tracheitis: a multi-centre perspective. *Scand J Infect Dis.* 2009;41(8):548-57. Review.

- FAKTOR VPLIVA (2010): 1,562

FAKTOR VPLIVA (2009): 1,7

3: Petric M, Comanor L, Petti CA. Role of the laboratory in diagnosis of influenza during seasonal epidemics and potential pandemics. *J Infect Dis.* 2006 Nov 1;194 Suppl 2:S98-110. Review.

- FAKTOR VPLIVA (2010): 6,288

FAKTOR VPLIVA (2006): 5,363

4: Dwyer DE, Smith DW, Catton MG, Barr IG. Laboratory diagnosis of human seasonal and pandemic influenza virus infection. *Med J Aust.* 2006 Nov 20;185(10 Suppl):S48-53. Review.

- FAKTOR VPLIVA (2010): 2,684

FAKTOR VPLIVA (2006): 2,582

5: Vega R. Rapid viral testing in the evaluation of the febrile infant and child. *Curr Opin Pediatr.* 2005 Jun;17(3):363-7. Review.

- FAKTOR VPLIVA (2010): 2,456

FAKTOR VPLIVA (2005): 1,639