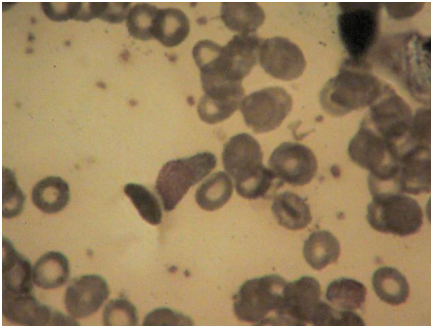
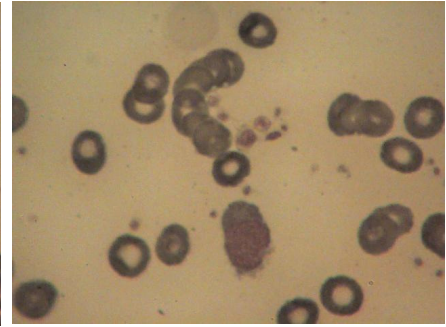
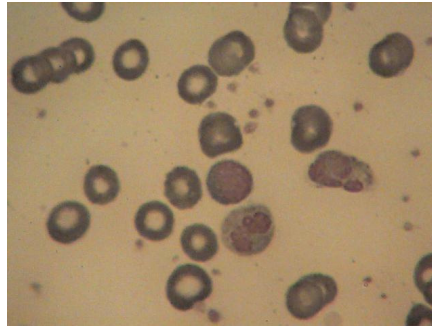
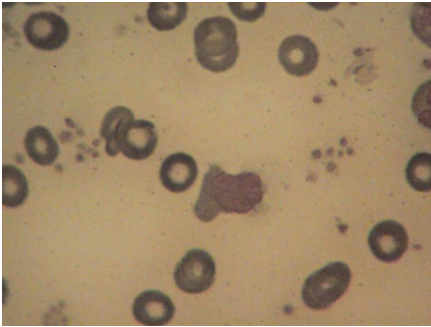


SD68-20100907 buffy-coat smear (1000X oil)

Diff-Quik stain:

<http://en.wikipedia.org/wiki/Diff-Quick>



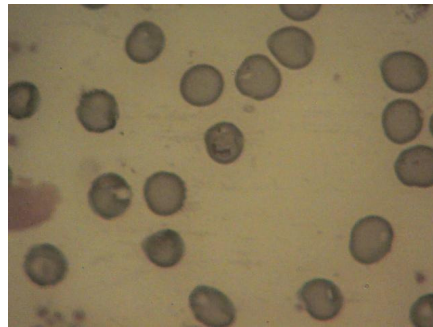
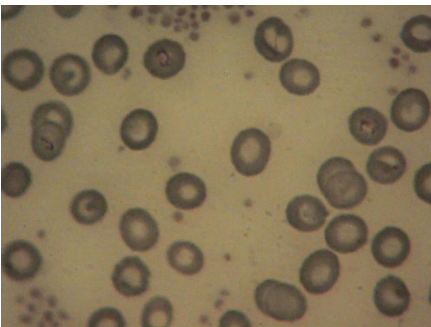
Note that some of the **leukocytes** (white blood cells) contain dark-blue stained granulated material in the cytoplasm, which corresponds to (descriptive name) ~ "granulated cellular structures", wherein the granules may move either independently or chained together
 - like pearls on string ... these cells probably represent immune cells - monocytes / macrophages
 - which have phagocytized microbes, that are not broken down by the immune cells, as would normally be expected, because - characteristically - "granules" inside the cells may continue to move for several days even in ambient room temp. around 21 °C and may continue to move for at least 8 days at room temp. of 35 °C (longest observation period) ...

Video from same blood sample, microscopy of wet drop buffy-coat:

<http://case.ulmarweb.dk/SD68/SD68-20100907.wmv> (Windows Media stream)

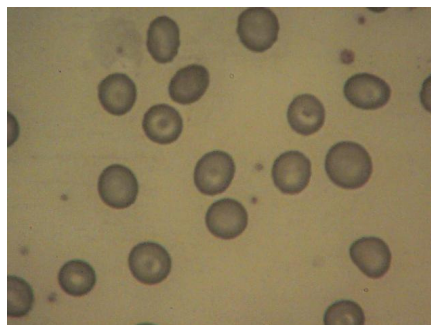
Montgomery et al. The fate of *Borrelia burgdorferi*, the agent for Lyme disease, in mouse **macrophages**. Destruction, **survival**, **recovery**. PMID: [8423346](https://pubmed.ncbi.nlm.nih.gov/8423346/)
 "The macrophage is a known reservoir for a number of infectious agents, and is therefore a likely candidate site for persistence of *Borrelia burgdorferi*, the Lyme spirochete. ... Moreover, we can reculture spirochetes from macrophages after infection. Persistence of spirochetes within macrophages provides a possible pathogenetic mechanism for chronic or recurrent Lyme disease in man."

Se also <http://lymerick.net/MK-videomicroscopy.html> for videomicroscopy examples on other patients, alike findings!



"Something" is stained dark
 - located inside the red blood cells?

Ringforms?
 Spirochete?



Target cells?

Blood Cells:

<http://lymerick.net/Blood-Cells.pdf>

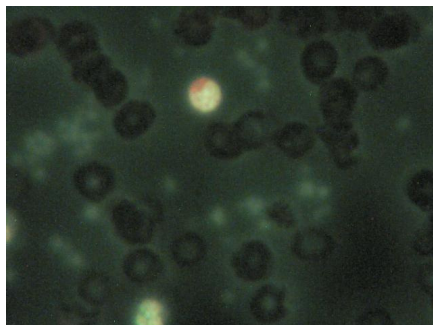
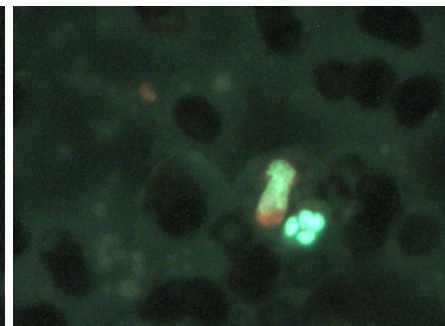
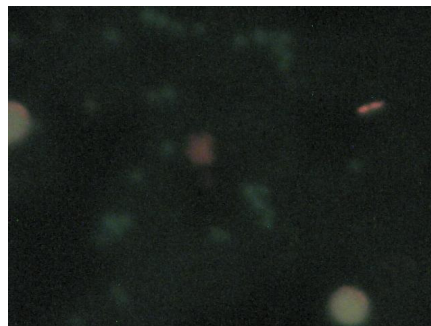
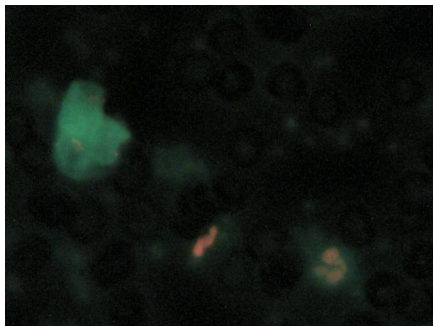
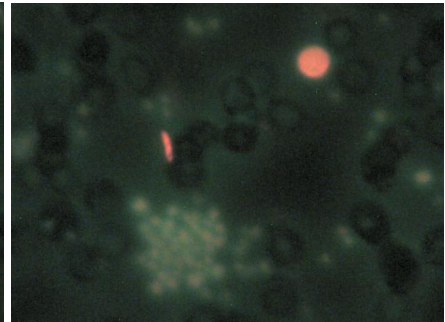
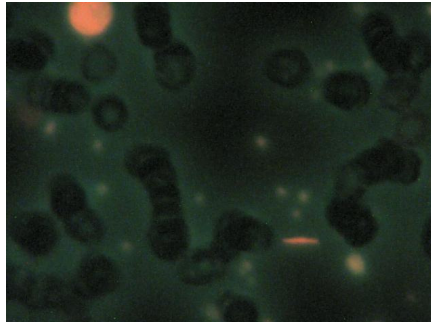
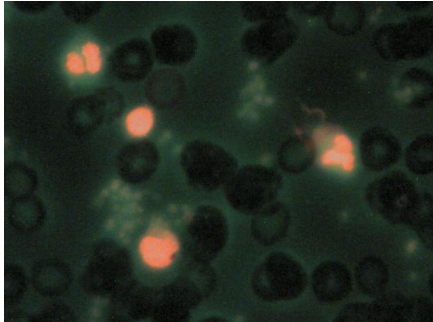
SD68-20100907 buffy-coat smear (1000X oil)

Acridin Orange stain w/ BD reagent droppers: http://en.wikipedia.org/wiki/Acridine_orange

Danish: [http://www.bd.com/europe/regulatory/Assets/IFU/US/8820211\(0604\)_da.pdf](http://www.bd.com/europe/regulatory/Assets/IFU/US/8820211(0604)_da.pdf)

English: [http://www.bd.com/ds/technicalCenter/inserts/L001122\(0703\).pdf](http://www.bd.com/ds/technicalCenter/inserts/L001122(0703).pdf)

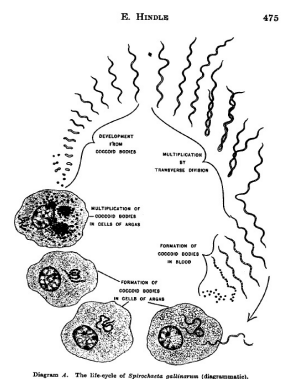
"Acridine orange binds to nucleic acids of cells and bacteria. When viewed under UV light, single-stranded DNA and RNA fluoresce orange, whereas double-stranded DNA appears green. At low pH (3.5 - 4.0), **bacteria and fungi stain bright orange**. Cellular material stains pale green to yellow. 2 **Nuclei of activated leukocytes may stain orange, yellow or red, depending upon the degree of increased RNA production**. Erythrocytes either have no color or appear pale green."



Filamentous nearly straight or spiral structures staining red-orange
– perhaps represent rather short ("baby") spirochetes?

Compare to video clips from the same sample:
<http://case.ulmarweb.dk/SD68/SD68-20100907.wmv>

See also <http://lymerick.net/MK-videomicroscopy.html>
- for videos of moving "granulated cellular structures" and spirochetes
granule shedding ... - and 100 pictorial of Alternate Spirochetal structures:
<http://lymerick.net/2001-AdverseConditions.pdf> => Hinde 1912



Ringforms inside red blood cells?

